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COPY FOR ADVERTISEMENTS.

Advertising copy (changes or new advertisements) should reach us Saturday Morning to insure insertion in the issue of the following week.

For the first issue in the month we should receive copy by Friday Morning of the week preceding.

The Manufacturers' Record congratulates Senator John L. McLaurin of South Carolina.

In a letter to the Manufacturers' Record Benjamin F. Kelley & Son, 91 Liberty street, New York, write:

We are sending you under a separate cover new electrotype for our advertisement in the Manufacturers' Record. We are greatly pleased with the results we have obtained from this advertisement. We are placing a steadily-increasing number of our improved Berryman water-tube feed-water heaters and purifiers throughout the South, and a large part of this increase we can ascribe to the Manufacturers' Record.

BLAIR EDUCATION SCHEME REVIVING.

With investigation, conducted upon strict lines of scientific research, slowly but surely revealing the meaning of the Southern Education Scheme, Mr. Robert C. Ogden said at Richmond that questions about the conference would find no adequate answer in facts about its earlier sessions. That dictum must have amazed persons who had been invited to come to Richmond for information. It had the effect of steering from the main questions more than one earnest seeker for light, judging from the confused and confusing publications of the results of the seeking.

But it did not bar real investigation; the rather was that intensified; the more diligent became the study of official literature of the Scheme; the greater was the readiness to illuminate the subject still further—at the proper moment.

That moment seems to have arrived, born out of due time as it were, but not entirely unexpected. It was ushered in by a long-hesitating supporter of the Scheme, the New York Independent, whether tentatively or by accident it would be impossible to say. At any rate, in associating in one paragraph the Southern Education Scheme

and the Blair Education agitation, which has been comatose for fifteen years, the Independent has suggested to persons of average memory a connection between the movements. This suggestion had already developed in the investigation, but it had not been broached until the field had been vacated by minor disputants seeking to belittle settled and accepted facts by hair-splitting definition and imagining that snarls and yelps and invention of absurd theories could possibly be mistaken for reasoning. While these will probably continue to revel and wrangle among the bones, thinking men of the South, the real molders of substantial opinion in that part of the country, will weigh thoughtfully the purport of the Independent's suggestion.

They will, it is believed, be interested in an article published on another page of this issue of the Manufacturers' Record tracing the reincarnation or the galvanizing of the Blair bill of 1883 in the Southern Education Scheme of 1903 as a movement for federal aid to the common schools of the South, with its inevitable negro question. The article traces the direct links through individuals between the Schemes, it sketches the persistence of the preaching of the pernicious doctrine of federal assistance to Southern schools, and shows, from the words of the chairman of the General Education Board for the promotion of education without distinction of sex, color or creed, that the germinal purpose of such a board was to create a "proper channel through which the Negro Industrial Education can be reached successfully" so as "to strengthen Hampton and Tuskegee," "to build up a secondary school system under the general control and supervision of Hampton and Tuskegee," and to be recognized by the government with funds and lands.

"Is not," he asked in 1899, "public sentiment ready to endorse government assistance if the proper channel is provided by which such aid can be distributed properly?"

"Is the South," may be asked in 1903, "ready to share with the negro such pauperization in spite of the enthusiasm of individuals whose very ardor in the cause betrays the sad effects of depending, if only in part, for outside aid in education?"

"Is it any wonder," may also be asked, "that strenuous attempts have been made to becloud facts clearly indicating that the motor influences in the Southern Education Scheme have been men long identified principally with regard for the negro, and with Hampton and Tuskegee especially?"

Will the South, caught napping, accept the husks of federal aid for schools, despite precedents set in extremity, that the plan for negroes, unable to stand of itself, may be carried through?

Advertisements of Southern localities offering special advantages for the location of manufacturing enterprises will be found on pages 58 and 59.

INCREASE OF NATIONAL BANKS.

The growth of the national banking system during the past three years as a result, in part, of the passage of the act of March 14, 1900, which authorized the establishment of national banks with a capital of less than \$50,000, is shown in the bulletin just issued from the office of the comptroller of the currency, reporting that from March 4, 1900, to April 30, 1903, the number of national banking institutions increased from 3617 to 4914, a gain of very nearly 36 per cent. The total capital increased from \$616,308,095 to \$743,106,695, a gain of more than 20 per cent., this latter showing that the increase in the number of banks was principally the result of the establishment of the smaller class of national banks, the total of which is now 990, and many of which have been organized in the South and Southwest.

That the creation of new national banks and the conversion of State and private banks into national institutions is increasing rather than diminishing is shown by the fact that while the gain in the number of existing national banks since the passage of the new law has been at the average rate of thirty-five a month, the number of national banks organized during April, 1903, is fifty-one. Of this latter number thirty-three were of the class authorized by the act of March 14, 1900. Three State banks were converted to national banks during the month and eighteen were re-organized as national banks from State or private banks. It is reasonable to expect that there will continue to be a large gain in the number of national banks for some time, in view of the rapid development in the Southwest and the opening up of new mineral and timber regions in the South.

WHITES IN SOUTHERN AGRICULTURE.

Prof. Goldwin Smith of Canada, arguing from the viewpoint of Southern agriculture of fifty years ago, fell recently into the error of attributing the importance of such Southern staples as rice and cotton to negro labor. However great was the part played by negroes in cotton-growing in the days of slavery, that part began to diminish with the close of the war, and the proportion of whites raising cotton has become greater and greater with every year since. As to the special adaptability of the negro to rice-growing, Professor Smith should study the history of the past sixteen or seventeen years of Southwestern Louisiana and Eastern Texas, and especially of Acadia and Calcasieu parishes in the former State, to which more than 20,000 white persons from the North and West have been attracted by rice-growing. He should study the hundreds of miles of irrigating canals, the pumping stations and the rice mills, and the transformation of the prairie under culture adapted from wheat-raising and the rise of the value of land from \$2 or \$3 to \$25, \$50 and \$100 an acre. One of the

latest phases of this advance was recently described by Mr. S. F. B. Morse, assistant passenger traffic manager of the Southern Pacific system, as follows:

A man by the name of Russell, who came from Minneapolis, Minn., and who has had much experience in raising wheat in the far Northwest, bought the first steam plow to be used in the rice country, and is now operating it on his rice farm of 1000 acres, which is located five miles out of Houston on the Southern Pacific Railroad.

When he went to buy the engine for his plow he wanted the company from whom he purchased it to sell it to him subject to a test on his rice farm, but objection was made to this procedure, and he then bought the traction machine outright. He wished to buy the eight plows needed to hitch onto the engine subject to the same test, but again he met objections, and again he bought outright. He knew how steam plowing was carried on in Minnesota, and was convinced that it could be done in the same way in Texas, as the rice prairie was perfectly level.

Although everybody discouraged him and advised him against making the experiment, he went ahead and exercised his own judgment, with the result that he is now plowing his land at the rate of forty acres per day. His steam plow does the work of thirty mules and eight negroes.

The importance of the introduction of the steam plow into the rice fields cannot be overestimated when it is understood that labor is so very scarce that it is almost impossible to get the crops in. The negro does not seem to make a good hand in the rice field. It is impossible to get any other sort of labor sufficient to meet the demands of the rice farmers.

The development, which has been marked by a change from the sickle and flail to the modern reaping machine, the steam thrasher and the steam plow, has been the work of whites, and it points to further achievement of the age of machinery in Southern agriculture, reducing the negro to even less importance than now is his.

PROGRESSIVE WILMINGTON.

The report of Mr. James H. Chadbourn, retiring president of the Wilmington (N. C.) Chamber of Commerce, at its fiftieth session, is a noteworthy summary of good results flowing from persistent, energetic and well-directed efforts of business men for the upbuilding of their community. Mr. Chadbourn shows how the Chamber has a general oversight of the business of the port, establishing rules governing trade and shipping; he describes the methods for keeping a thorough record of all commodities dealt in by the city's merchants, the liberality of the Chamber in spending money to promote Wilmington's interests, noting especially the preparation of a volume setting forth the many advantages of Wilmington and its vicinity for manufacturing, for business and for residence, and its interest in attracting new industries and sustaining those already established. He said that never before were the prospects of the city so bright, and he revealed the reason for that in his additional statement that the merchants of Wilmington have more public spirit than ever before, are more united in their public efforts and present a solid front in bringing Wilmington forward as a commercial and industrial center and as an export city.

MORE MEN NEEDED.

It is safe to say that more work is to be done today in the world than there are men available to do it, and this, too, in the face of an enormous expansion in the use of labor-saving machinery. Wherever development is under way, above ground or below it, there is the cry for skilled or unskilled workmen. Ten years ago one of the greatest economic problems was that of the distribution of the products of industry. That is gradually being solved, but its solution has accentuated another problem—the distribution of labor for industry. The impediments are of natural growth or of artificial creation. In the British colonies in South Africa there is such an inadequacy of labor for the mines that plans for the importation by wholesale of coolies from India or China are being agitated. At the same time there is a superabundance of men looking for clerkships or like positions, unwilling to engage in manual work, and, indeed, hardly the proper persons to go into the mines with the blacks. This situation is a natural result of false training, creating a restless spirit and diminishing ability to find the place where natural parts may be utilized to good effect.

A shortage in the supply of Chinese laborers on the Pacific coast has sent representatives of fruit-growing interests as far east as New England in search for laborers. There is found complaint, echoed by Western and Southern farmers, of a dearth of hired help. Explanation of this is the demand for able-bodied men in manufacturing industries, seen in railroad construction, at the ore mines, coke ovens and limestone quarries of Alabama, the drift to mill towns in the Piedmont South and to the manufacturing centers of all parts of the country. Another significant influence is thus described by the Chicago Drovers' Journal:

There are various reasons given for this scarcity of farm help, but there is no doubt that the railroads are responsible in a measure. Some of the roads are employing a larger number of men on construction work and in their shops, but a much larger number have been taken to new farming countries. The Illinois Central alone has induced thousands of good healthy farmers to take up the work in the South, where millions of acres have been developed and are now developing, and a large number of people who in past years have been working for wages are now down in Mississippi, Louisiana, Texas, Tennessee and Kentucky, working on land that will soon be their own, raising berries, garden truck, cotton, fine stock and grasses.

This shifting is a perfectly natural movement, and is bound to continue as long as man is impelled to better his condition and has opportunity to do so.

The most irritating influence appears in the determination of men under various spurs to refuse to do the work at hand and to prevent, directly or indirectly, others from doing it. The Canadian Manufacturer finds there is an emergent need of workmen of all kinds, particularly skilled mechanics, in the industrial centers of Canada, that nearly every industry and many farming sections are undermanned, and if wage-earners are not to be had soon manufactures will be handicapped. It was recently estimated that there is a shortage of 5000 men in the amount of skilled labor required for present purposes without reference to expansion with the rise of new industries. The stress has become so great that a deputation has urged upon the Premier of Ontario that the government take steps in the matter. A willingness to pay good wages was expressed, and the only serious obstacle suggested was the

opposition of the labor organizations. The Manufacturer says:

The trouble does not lie in the disinclination of the manufacturer to pay the current value for a man's labor, the same as for iron, but rather in the fact that when these two essential elements are brought together the iron makes no resistance to its being converted into boilers, while the boiler-maker absolutely refuses to be utilized for that purpose unless upon conditions to which the manufacturer cannot possibly agree. The labor leaders, in combatting the request of the manufacturers, are vociferous in declaring that there is no scarcity of skilled workmen, and that there is little or no disagreement as to wages. The manufacturers are quite competent to judge as to the scarcity or the abundance of labor. The point of divergence, as far as the labor element is concerned, is as to whether the manufacturers can be forced to recognize the union. Conceding that this will not be done, the labor organizations are endeavoring to starve the manufacturers into submission. A man may starve to death with plenty of food within sight if he cannot reach it, and boiler shops and factories may moulder in idleness if no workmen will enter them. We know the fate of the goose that laid golden eggs, and we have all heard of the dog in the manger.

The same sort of controversy is behind not a little of the trouble in the United States. The moral drawn by the Canadian Manufacturer should not be lost upon our own people.

GOVERNOR JENNINGS' POINT.

Gov. W. S. Jennings of Florida has rendered his country a distinct service in vetoing a joint resolution of the legislature of that State in favor of the calling of a constitutional convention of the United States. In his veto message Governor Jennings points out that though the ostensible purpose of the convention is to provide for the popular election of United States senators, the convention in reality would have power to formulate any amendments of the Constitution deemed advisable by the delegates. In recent years a number of propositions looking to changes in the Constitution have been ineffectually before Congress, notably one originating in a narrow industrial element in New England and directed against the South, seeking to give Congress the power to regulate the employment of labor in the whole country. Promoters of such agitations have more than one way of carrying out their designs. Who knows but that a convention called in relation to the election of United States senators might be induced to lay the foundation for a constitutional change relating to labor absolutely opposed to fundamental rights of American citizenship.

MR. HOKE SMITH'S FIGURES.

In his speech before the Charities Conference at Atlanta, Mr. Hoke Smith asked, "What, then, is to become of the 1,750,000 children shut up at work?" or, as he was quoted elsewhere, "shut up from one year's end to another within factory walls?" It would be interesting to discover the statistical process by which Mr. Smith gained his basis for his comparison of the number of children between the ages of ten and fifteen years who were at work in 1890 and in 1900, and the further mental process which led him to shut up within factory walls from one year's end to another 1,750,000 children. That is worse than anything the mill-owners of the country have dreamed of doing. The census of 1900 showed that manufacturing industries in the country were giving employment to but 168,583 "children under sixteen years," many of said children being lusty "infants" able to labor for a living—and many of them not working in factories as generally

understood. Here Mr. Hoke Smith has gone and shut up within the factory walls more than ten times the number of children that the census could find there. He ought to be ashamed of himself. Next thing he knows he will have the child-labor committee of Alabama pointing to him as another horrible example.

SUGAR-CANE GROWERS.

Action of the Interstate Association Upon Organization.

The Interstate Sugar-Cane Growers' Association became a permanent body last week, with the following officers: President, D. G. Purse of Georgia; first vice-president, Emile Rost of Louisiana; second vice-presidents, C. G. Abicombie of Alabama, R. E. Rose of Florida, Thos. J. James of Georgia, John Dymond of Louisiana, H. H. Overstreet of Mississippi, John Lawton of South Carolina; treasurer, I. B. English of Georgia; secretary, Eugene Anderson of Georgia; assistant secretaries, E. C. Bruffy and George Ketchum of Georgia; executive committee, G. W. Black of Alabama, A. L. Wilson of Florida, G. P. Youmans of Georgia, L. M. Soniat of Louisiana, B. McClanahan of Mississippi, W. S. Lipscomb of South Carolina.

Its two days' session at Macon dealt with practical matters looking to the development of cane-growing in the South. Among the speakers were Secretary James Wilson of the Department of Agriculture and representative men from Louisiana, Mississippi, Georgia, Florida, Alabama and South Carolina. Among the resolutions adopted by the convention were the following:

"Whereas, there should be no discrimination between the various sections of the Union in the application of the tariff policy of the government; and

"Whereas, the Cuban reciprocity treaty, the only one involving the question of reciprocity which has been pushed to a vote, directly discriminates against the sugar-cane, tobacco and fruit-growers of the South; therefore, be it

"Resolved, That this convention protests against the ratification of the proposed Cuban reciprocity treaty, and urges upon Congress its rejection."

"Whereas, it is a lamentable fact that the American merchant marine has languished to such an extent until the foreigner now carries more than 90 per cent. of our trade; and

"Whereas, we now pay \$200,000,000 per annum to the foreigners for freights; and

"Whereas, the South has begun to look more and more to the markets of the outside world, and seeks a wider field for the products of her mines, forests and factories; therefore, be it

"Resolved, That we urge upon Congress, and especially our own representatives, first, that they earnestly inquire into the cause of this dependence upon foreigners, and, second, that they apply such remedy as may seem right and proper, that shall rapidly restore this nation to a place of supremacy on the high seas, at least so far as our commerce is concerned."

It was resolved that a special effort be made to call attention at the St. Louis Exposition to the merits of sugar-cane syrup.

In a letter to the Manufacturers' Record Gen. John M. Claiborne of Rusk, Texas, writes that the Missouri Steel Co. will begin on the 20th or 21st inst. an experiment to test the iron at Rusk for the manufacture of steel. They agreed, if successful, on a purchase of the Star and Crescent furnace, owned by New Orleans capital. The test will be made at the State furnace.

IMPORTANT NEW INDUSTRY.

Cotton-Oil Mills and Gineries in Porto Rico—Sea Island Cotton Culture.

Mr. R. M. Walker, formerly of Cullman, Ala., but now of San Juan, Porto Rico, and others have organized the Walker Cotton & Industrial Co., which will immediately build cotton gineries, cotton-oil and fertilizer mills at San Juan. The works are to be ready for handling this season's crop, which will begin to be gathered in the latter part of August. The company, which was incorporated at San Juan last July with \$10,000 capital, has increased its capitalization to \$400,000. The officers are: President, R. M. Walker; vice-president, J. Ramon Latimer; secretary and treasurer, Herman Engel. The board of directors consists of the officers and Messrs. Alvin Ahlrichs, president of the Cullman Cotton Co. of Cullman, Ala., and T. W. Pratt, vice-president of that company, of Huntsville, Ala. Mr. Latimer is mayor of San Juan and superintendent of the New York & Porto Rico Steamship Co., and Mr. Engel is of the firm of Mullenhoff & Korber, bankers, of San Juan.

Mr. Walker, who was formerly with the Cullman Cotton Co., went to Porto Rico about two and one-half years ago, and by experiments demonstrated that Sea Island cotton could be raised there successfully and profitably. He soon had sixty-eight plots under cultivation, and the results led to the formation of the company of which he is president. There are now 8000 to 9000 acres of Sea Island cotton planted and under cultivation in the island, and this amount, Mr. Walker states, will be raised to 12,000 acres by July 1, the end of the planting season. Two crops are gathered each year, and the annual yield is about one bale to the acre, which for the first year will be a total of 12,000 bales. This will produce 6000 tons of seed, 240,000 gallons of oil and 5000 tons of fertilizer, in addition to the cotton. The staple will be handled at the company's works, which will occupy about two and one-half acres of ground at San Juan, on the Marina, between the French Railroad and the bay.

Mr. Walker further says that cotton raised under his tests was sent to Liverpool, Manchester, New Orleans, Charleston and Savannah, and rated by all as good Sea Island cotton. The product was also similarly rated by the United States government. He expects to see a large development of cotton culture in Porto Rico. Owing to the climate, it is necessary to plant only every three or four years, and labor is cheap, there being probably 750,000 cotton pickers on the island.

Looking for Dogwood.

The Manufacturers' Record has an inquiry from an industrial concern relative to a supply of dogwood from which cotton-spinning shuttles may be made. The inquirer desires to know whether anyone has near tidewater or within easy access of a water-shipping point a tract of land with a large growth of dogwood or a tract of land where dogwood can be found and made into small pieces for shipment North. Answers to the inquiry should be addressed to "Dogwood," care of the Manufacturers' Record.

Wants Cotton Machinery.

Mr. R. H. Marburg of Hermosillo, Mexico, desires to get into communication with a first-class house in the United States that manufactures cotton machinery, such as hullers and pulpers and hydraulic presses to win the oil of the cottonseed pulp, and machinery for packing cotton for export.

FOR THE PROMOTION OF MENDICANCY.

Relation of the Ogden Movement to a Revival of Advocacy of the Blair Education Bill.

By EDWARD INGLE.

[Written for the Manufacturers' Record.]

One of the cats has been turned loose from the meal bag of the Southern Education Scheme. It appears as a modified form of the Blair "Bill to Promote Mendicancy," the title given it twenty years ago preliminary to its paralysis. The thing was bound to happen. But, perhaps, happening just at present, it partakes of that prematurity so characteristic of several of the developments of the Ogden Movement. The accident happened in a hint that was given by the New York Independent, which, in its issue of May 7, said:

"We strongly favored the proposition some years ago to make an appropriation from the United States Treasury to aid the public schools in the South, where the school system was new and not entrenched in the sympathies of the people. We were beaten in it by the cry that the South must not be 'pauperized' by any Blair bill, as if gifts for education ever pauperized anybody. But those who were then so bitterly unreasonable have quite changed their tactics when it comes to the use of Mr. Rockefeller's million for encouraging public schools under the Southern Education Board. They are right now, as they were wrong then. But there is suspicion in some quarters."

Tactics of those opposing upon principle the measure which was largely the burden of Henry W. Blair's incursion into national statesmanship have not changed. Nor has their opposition been diminished in the face of a cultivation of the spirit and of the apparent setting of precedents which might make the Blair bill a legislative possibility. They view with regret, however, the ease with which promoters of the Scheme, by changing their tactics, have temporarily bemuddled the situation and have befuddled earnest workers into assisting in a movement which, if exposed in all its nakedness, would be utterly repudiated by them. Without recalling the eight years' details of the Blair movement, it may be stated that his bill passed the Senate three times. It was favored by not a few Southern men in politics or in private life. In the early eighties the appalling conditions in the South born of the desolation and devastation of reconstruction were enough to lead even men of stoutest heart to welcome, almost without questioning, any measure of relief. Still other influences than such a desire were revealed in votes of Northern and Southern senators on the measure, which changed between 1884 and 1888 from thirty-three in favor of it and eleven against it to thirty-nine in favor of it to twenty-nine against it. One senator supported it because he thought that a vote against it would be used to prove that he was opposed to popular education; another argued that if the people wanted it they should have it, and a third satisfied his conscience with the contention that it could not get a majority in the House of Representatives, while a Southern senator explained that though he doubted the wisdom of it, he had voted for it under instructions from the legislature, which understood that he would support it when he was elected senator. The debates reveal the mixtures of motives so potential whenever any measure appealing speciously to the people is under discussion, and the effective arguments against it are singularly appropriate to the modified movement of today, when the superficial pretext for it is slighter than ever. The

New York Evening Post, then under auspices so different from the present, and The Nation led in the fight against the Blair bill, and the latter put up the following arguments:

"The Christian Union and the people who share its opinion that federal appropriations for Southern education would be simply 'the payment of a debt due by justice' are honest in their desire to benefit the South, but if they could accomplish their design they would have proved its worst enemies."

"The South can much better afford to have fewer intelligent voters ten years hence than to have purchased their education at the expense of its own self-reliance and self-respect."

"It is important for the South that its present ignorance should be dispelled as soon as possible, but that is not the most important thing for the South. The vital element of any success that is worth achieving in this world is self-reliance. The man who works his own way to an education may not acquire it as soon or get as good an education as one who receives it at the hands of charity, but it will be worth a great deal more to him, and he will be worth a great deal more to the community. The same principle holds as true for the State as for the individual."

"The South can educate herself, and is beginning to do so. It will be a hard job, but her people, black and white, will be more manly, more self-reliant, more intelligent in the long run, if they are left to work out their own salvation. The most hopeful sign for the South's future is that clear-headed Southern men are protesting against the efforts of well-meaning but shortsighted Northerners to give the South school money out of the federal treasury which these Southern men see that she ought to raise and can raise herself."

"The most satisfactory feature of the matter is the fact that the opposition which has defeated the 'Bill to Promote Mendicancy' was largely the opposition of self-respecting Southern men like Senator Butler of South Carolina, who put the case against it forcibly four years ago when he said: 'We ought to pause and reflect for fear that in throwing this large amount of money into the States you will check the effort in those States to develop their own common-school system in their own way. Why, Mr. President, there is no success in life comparable to the success which attends individual effort—none so enduring, none so satisfactory.'"

The Nation used the word ignorance in the loose sense of inability to read and write, and it must not be understood that only opponents of the measure in its various forms were self-respecting men, however its supporters may have been mistaken in their judgment. But Senator Butler's contention was typical of representative opinion on that point unappalled by obvious facts or by alarming arrays of figures, while the menace to self-reliance in the Scheme was similarly voiced in the argument of the Texas School Journal that the bestowal of such aid would give some communities "some pretext for postponing such action as they owe to their schools through some vague hope that manna will somehow descend upon them from above," and of the Nation that "the worst effect of the continued discussion of federal aid as a pos-

sibility is its demoralizing effect upon independent effort in the South," while the Hartford Courant insisted that "the centralizing remedy proposed will be greater danger than the evil." Practical illustration of the workings of the propaganda was given in a letter by Woodrow Wilson describing a scene in the early eighties in the Georgia senate. Urged to provide for higher taxation for school purposes which was possible, but a small minority responded, while a majority, refusing to reply to arguments, favored a counter proposition that the representatives of Georgia at Washington do all in their power to secure the passage of a bill giving aid from the federal treasury to education in the States. Commenting upon this incident, Mr. Wilson wrote:

"It was evident that no increase in the State appropriation for public education would be voted so long as there was the least prospect of aid from Washington. The whole performance impressed me as a startling declaration upon the part of a well-to-do community of its deliberate determination to enjoy the easy position of a beneficiary of the national government to the fullest possible extent, rather than to be independent and support a good school system by its own unaided effort."

A stock argument in its favor was that this federal aid was the "payment of a debt due by justice." On that point the Christian Union said:

"The nation shares the responsibility for slavery. It is wholly responsible for emancipation and enfranchisement. If the South had enfranchised the blacks, we might leave the South to educate them, but in putting the ballot into one hand we obliged ourselves to put the school book in the other."

Though the Christian Union, with others, changed its opinion about the Blair movement, its earlier sentiment thus quoted finds almost phonographic reproduction in the promotive literature of the Southern Education Scheme in such sentences as these:

"The federal government freed the slaves, but the federal government spent little indeed in fitting them to use their freedom well."

"The very hypothesis of intervention in behalf of the negro was that the condition of the black man was the care and responsibility not of a section, but of the whole country. The very essence of the theory of emancipation was that the status of the black man was the charge of the nation."

"The South with inadequate resources has been largely left to bear alone a national burden and to discharge a national responsibility."

"I am glad that there are those who, under the pure impulses of a generous patriotism, are trying to aid in doing personally what the nation has not done officially."

The mendicant frame of mind thus revealed and thus encouraged, so different from that of Senator Butler and other "unregenerates" of his day, probably prevented the Southern-born elaborator of Blair-bill arguments in advocacy of the Southern Education Scheme from realizing how closely the two undertakings were connected. To show their connection certain facts about the generating movements of the Southern Education Scheme must be recalled. In 1898 at "The First Capon Springs Conference for Christian Education in the South," as it was then called, of the thirty-four persons who were published as members, the Rev. Dr. A. D. Mayo, a Unitarian minister who had become an educator, was quite active not only in defining what a Christian education meant, but in debates about negro education and other

topics. The Rev. Dr. Mayo headed the list of members of the Second Capon Springs Conference in 1899, the word "Christian" having in the meantime been dropped from the title, just as the word "Capon" was dropped two years later when the conference ceased to enjoy the hospitality of the proprietor of the Springs and moved with its special train accompaniment upon the hospitality of Southern cities.

Now, for the benefit of persons who have not followed the career of the Rev. Dr. Mayo, it should be said that he was one of Senator Blair's right-hand men in the mendicancy movement of the eighties, a movement which involved speeches before educational bodies and the use of statistics no whit more absurd than the statistics promulgated from the Bureau of Information at Knoxville, and of argument based thereon no whit more easily punctured. Dr. Mayo is the gentleman who, in his latest article for the national Bureau of Education, wrote of the people of the South being "brought in line with the progressive ideals of society and government certain to prevail in the republic," and of "the Christian people of the North following the Army as an agency of peace and good-will, as far as possible restoring, rebuilding and placing on the ground abandoned by the Confederacy the beginnings of a characteristic American society." In that very article, which was published in 1902, discussing the Blair bill, Dr. Mayo wrote that "the last word has not been spoken or the last effort made in this direction," and that only certain things were needed "to awaken another effort even more radical and of accepted wisdom for elevating the quality of American citizenship among several millions of our people."

The grounds for that hope lay in the fact that at the primary Capon Conference the Rev. Dr. H. B. Frissell, principal of Hampton Institute, and now a member of the campaign committee of the Southern Education Board, as chairman of the executive committee, presented a message and appeal concluding as follows:

"Upon the principle that if one member of our Union of States suffers, all the members suffer with it, the duty of the whole country to foster education in every part is manifest, and the question of a larger and more energetic national aid in behalf of efforts for the education of illiterate masses deserves the most serious consideration of all patriotic citizens, and never more so than at the present time."

Hon. J. L. M. Curry, general agent of the Peabody and the Slater boards, though not present at that conference, was elected its vice-president. He, too, interested intensely in education of the whites of the South, had been a supporter in the eighties of the movement for federal aid. As president of the Second Capon Conference, which endorsed his services as general agent, he reverted to the subject when he said:

"When the Government emancipated the negroes there was an imperative resulting obligation to prepare them for citizenship and freedom, but the Government has persistently and cruelly refused to give one cent of aid to this indispensable work."

His inclinations in this respect were further manifested in his report to the trustees of the Slater fund in April, 1901, urging the appointment of a commission to consider the question of education among the negroes, which resulted in his being made one of the committee to bring the matter before the next Congress, and by his words of two or three months later, when referring to the necessity of national aid for negroes urged upon Congress in

February, 1880, by the Peabody fund trustees, he wrote:

"At other sessions the subject was presented anew to the country. The general agent of the fund has presented two petitions to Congress, appeared three times before the Senate and House committee on Education, and urged the matter before assemblies North and South. At the late Southern Education Association in Richmond, Va., the very able and accomplished head of the Bureau of Education, Dr. Wm. T. Harris, felt constrained to call the attention of the country again to this vital subject, this paramount issue. Hitherto the government has not concurred in the views of the trustees, but has cruelly and suicidally turned a deaf ear to arguments which seemed to be irresistible, and this refusal only makes more obligatory the patriotic sacrifices of the Southern States."

At this Second Conference, which elected Mr. Robert C. Ogden vice-president, the nearest approach to mendacity in official action was in the resolution announcing that the achievements of the South "in the creation of common-school systems for both races deserve not merely the sympathetic recognition of the country and of the world at large, but also give the old and high-spirited colleges and universities of the South a strong claim upon a generous share of that stream of private wealth in the United States that is enriching and vitalizing the higher education of the North and West." But the national-aid project appeared in the speech of Mr. Wm. H. Baldwin, Jr., now a member of the Southern and General Education Boards. He said:

"It is our duty to strengthen Hampton and Tuskegee and any similar institutions; to concentrate money and effort in their work; to establish other Tuskegees; to build up a secondary school system under the general control and supervision of Hampton and Tuskegee, that their influences may be far-reaching; to organize a general Educational Board, by which effective work may be accomplished throughout the South; that funds given to the negro cause may be given through such an organization or to schools approved by them, so that the giver may be sure that his contribution will be used effectively. * * * The approval of an Educational Board, properly organized, will be in itself a warrant to those who may contribute that their gifts will be expended properly. * * * Now is the accepted time to concentrate with an Organization that will be recognized by the whole country as a proper channel through which the Negro Industrial Education can be reached successfully. * * * Such an organization, too, well may be recognized by the Government, and the Government may as well give funds and lands to assist that work as to pay millions to civilize the Philippines. The Government has aided our school at Tuskegee, as well as many other schools, with its lands, and in a small way has recognized responsibility to this educational cause. The Negro is still a ward of the Government, although he is not so recognized by it. Was it not unfair to turn the slaves free and to provide no means for them by which they might be educated to learn how to live? And does not the public now realize it, and is not public sentiment ready to endorse Government assistance if the proper channel is provided by which such aid can be distributed properly?"

That the public was not ready for it seemed to be demonstrated at the Third Conference in 1900, when Mr. Robert C. Ogden was elected president. At the last evening session of that conference Mr. Herbert Welsh of Philadelphia reported a resolution referring to the moral obli-

gation of the nation to fit the freedman for the suffrage and to industrial training of the negro at Hampton and Tuskegee and the whites at the Miller School, and saying:

"But the noble and effective work now being accomplished for both races by these institutions is entirely insufficient in extent to cover the whole field. We therefore earnestly call on our fellow-citizens of both sections of the country to petition the General Government to furnish such assistance to those States of the Union on which the burden chiefly rests as will enable them more fully to meet the needs and to relieve the strain of the situation." The resolution was adopted, but the next morning Hon. William L. Wilson, president of Washington and Lee University, expressed his dissent as a member of the committee on resolutions from the resolution offered by Mr. Welsh, he having been unable to be present at the session of the preceding evening, when it was under discussion. The resolution was reconsidered and the whole subject was referred to the executive committee.

What the executive committee did with the matter does not appear to have been made public. But it is interesting to note that the succeeding conference at Winston-Salem found "imperative need of renewed efforts on a larger scale" for education, and "in the improved financial outlook of the country and in the advancing state of public opinion better hopes than ever before of a larger response to this greater need." The Conference therefore created its Executive Board, known as the Southern Education Board, to conduct a campaign for education and to create "a Bureau of Information and Advice on Legislation and School Organization," and with good reason was chosen as supervising director of this board, and as chairman of its campaign committee, Rev. Dr. J. L. M. Curry, long the promoter of the movement for federal aid to negro education in the South, and, through practical experience and extended observation as general agent of the Peabody and Slater funds, well qualified to estimate the value of certain methods for cultivating a public opinion in favor of federal aid. The creation of the Southern Education Board, "the organization of the propaganda," was shortly followed by the formation of the General Education Board with \$100,000 a year available, the gift of John D. Rockefeller, and with national incorporation.

Thus, with the annual meeting of the Conference for Education in the South, no longer in summer, but timed conveniently for attendance upon anniversary exercises at Hampton or Tuskegee, was realized the dream of Mr. William H. Baldwin, Jr., at the Second Conference of the creation of machinery—perhaps it was the steam road roller mentioned by a member of the Ogden Movement of 1902—for smoothing the way for a revival of the Blair movement.

By some mysterious means, of which promoters of the Scheme subsequently declared their innocence, the annual Ogden Movements have been preceded by magniloquent talk in the daily press of the immense sums of money, the millions of dollars behind it, which were to be poured into the Southern schools, and it is not surprising that with the possibility of a winding up of the Peabody trust the Scheme has had ardent supporters among individuals who have personally experienced the benefits of the Peabody fund. The impression about the immensity of the funds behind the Southern Education Scheme was strengthened by the statement of Mr. Robert C. Ogden in May, 1902, referring to the million dollars available:

"But a million dollars for that purpose! Why, it is a mere trifle. A hundred millions could be used and a hundred millions will be used before the work is thoroughly done."

But after two or three years it begins to look as though the machinery of the Southern Education Scheme is not to develop of itself these hundreds of millions from philanthropists, barring such gratuities as the \$600,000 from Carnegie to Tuskegee, but it is to cultivate a public opinion in favor of national appropriations, stimulated by exceptional statistical attention to the South by bureaus of the Government, and to be the medium, with

an increased force of salaried propagandists and enthusiasts, for the distribution of that aid.

As The Independent points out, however, there is no difference in principle between Rockefeller aid and national aid for the South's common schools. But The Independent is mistaken, it is hoped, in believing that the South has been so demoralized by the enjoyment of money from well-meaning philanthropy, for which there may have been justification thirty years ago, that it is ready to make real the Rev. Dr. A. D. Mayo's dreams of "ideals of society and government certain to prevail in the republic."

IMPORTANT RAILROAD PLAN.

A Railway Into the Meadow River Fields Will Open 200,000 Acres of Coal and Timber Lands.

Mr. H. Frazier, former chief engineer of the Chesapeake & Ohio Railway, has written for the Manufacturers' Record the subjoined article, describing a very important railway project in the southeastern portion of West Virginia, which, when built, will open up 200,000 acres of rich coal and timber land in Greenbrier county, although the line is projected to eventually be extended along the Meadow river into Nicholas county. This road, which will branch off the Chesapeake & Ohio Railway at Roncove, is one of the most notable of all the railway plans for taking to market the vast mineral riches of that remarkable region. Mr. Frazier's contribution is as follows:

"For many years after the Chesapeake & Ohio was built down New river all of the coal mines in that territory were located on the east or north side of the river; hence by this time in most of the mines the coal has been cut for a long distance back, and underground haulage has become expensive. In 1890 the Chesapeake & Ohio began the construction of a parallel line on the south or west side of the river, which has been extended from time to time until it is now complete from the mouth of Loup creek at Thurmond to the Hawk's Nest bridge, where the main line crosses the New river to the south side. Many mines have been opened along this line, and several lateral lines have been built up the side streams that flow into the New river from the south side; in fact, almost all of the developments that have been made in the last few years in this field have been made on the south or west side of the New river. The time has now come for developing that extensively rich territory lying east of the New river, and it seems singular that this superior field, being nearest to the market, as it is, was not opened first. The Meadow river, a tributary of Gauley river—which latter, together with the New river, forms the Kanawha—flows parallel to the New river, and about thirty miles east of it, entirely through this coal field south of Gauley, and those same seams of coal that have made the New river famous extend through to an outcrop along Meadow river. No developments have been made on this stream, because there have been no railway facilities for taking out the coal. Several lateral lines were built up the north side of the New river canon from the main line of the Chesapeake & Ohio, but none have ever extended more than ten miles towards the Meadow river. These latter lines are built upon high grades, and are expensive of operation. There has been talk at times of extending one or more of them over on to the Meadow river, but this has never yet been done, and the operation of such lines, if built, would be

expensive, and the tonnage would start west to go east.

"Since the coal on the Meadow river, like that on the New river, would almost all go east, the natural and quick development would be by a railway entering this new field from the east. These Meadow river lands and vast tracts lying to the east have been bought up by the Gauley Coal Land Association and the Meadow River Coal & Lumber Co., these two companies alone owning 200,000 acres, all of which is underlaid with the New river coals, and most of the surface is heavily timbered by virgin forest. The necessity for a railway to develop these tracts is apparent, and, as above stated, since most of the coals and practically all of the lumber will go east, it is now proposed to build a railway from Roncove, on the Chesapeake & Ohio, and at the foot of Allegheny mountain, across the high bluegrass plateau of Greenbrier county to the head of Meadow river, and thence down the same to Rupert, thirty-five miles distant from Roncove. This line is to be extended ultimately to a western connection with the Gauley branch of the Chesapeake & Ohio, which was constructed in 1890 up the Gauley river as far as the mouth of 20-mile creek. A charter has been procured by the Roncove, Lewisburg & Western Railway Co. for this line, and efforts are being made at this time to arrange for the early construction of forty miles of the road. This much line would develop immediately about 200,000 acres of coal and timber land.

"Since the first coal reached by this road is within thirty-five miles of Roncove, it is the nearest coal to tidewater in all the Chesapeake & Ohio territory, it being eighty-five miles by rail west from Roncove for the first New river mine. This line of road is inexpensive to construct, and will have no adverse grades to east bound traffic greater than 1¼ per cent. The maximum westbound or empty grade will not exceed 3 per cent., and this only extends for three miles on the Roncove end. Three per cent. is the grade of the Loup Creek branch of the Chesapeake & Ohio, down which has been moved an enormous coal traffic for ten years. Twenty-five miles of the country to be traversed by the new line is a high bluegrass plateau producing cattle in large quantity, and is in no sense a new country, having been settled by the sturdy Scotch-Irish, who, about the same time, settled the Shenandoah valley. Limestone abounds on this plateau, and the lime and cement industries will naturally spring up when railway facilities are offered. The Meadow river is a sluggish stream in an unusually wide valley for such an altitude, which will make the cost

of the construction of coke ovens and mining towns inexpensive. The coal lies close above the river, and long inclines are unnecessary as on New river. Lateral streams penetrate the coal lands in a singularly advantageous way for development in many places.

"This new road, when built, having its junction with the Chesapeake & Ohio at Ronceverte, will enjoy strategic advantages for a car supply and a liberal division of the through freight rates. The grades on the main line of the Chesapeake & Ohio increase towards the east from Ronceverte from twenty-one feet maximum to thirty feet per mile up the Allegheny mountain to its summit; hence the conditions of conducting transportation change at this place. Every eastbound freight train is increased in tonnage 25 per cent. here. A helping engine pushes each train up the 18-mile grade to Allegheny summit, and from that point one locomotive handles these heavy trains to the coast, there being practically no adverse grades between Allegheny summit and the tide. This is a physical condition that can never be changed. To supply tonnage for this increase to freight trains every fourth train from the coal field, almost 100 miles west from Ronceverte by the main line, is set off at Ronceverte, and the engine and caboose turned and run light to the coal field for another load. The train left at Ronceverte is divided up amongst the others as

described above. When the new road has been built the Chesapeake & Ohio will be able to fill out its trains at Ronceverte with a new traffic from the new territory, and it will be spared the expense of running light power west, as all trains will then go through. Consequently, this new line would seem to be in a position to receive very kindly treatment from the Chesapeake & Ohio, even to the extent of equipment for 25 per cent. of all of their through business.

"The first section of the road would easily serve thirty coal leases, and would reach an enormous traffic in lumber.

"The old town of Lewisburg, which is the county-seat of Greenbrier, and which, prior to the division of the State, was the western seat of the Virginia Court of Appeals, lies directly on the route, and will furnish considerable traffic. The magnificent bluegrass lands that surround it produce export cattle in large quantities, and it is reasonable to expect that this section will become more thickly settled after the construction of this railway. Lumber experts report the stand of hardwood in the Meadow river and adjacent territory second to none in America now. Hence the new railway will traverse a traffic-producing region throughout its length, and its construction seem to be a more than ordinarily good business venture in itself, without reference to its absolute necessity for the development of the vast coal fields and the virgin forest yet untouched."

roads all having made a rate of one fare for the round trip. I mention all this to show that the people are thoroughly aroused upon the necessity of industrial education.

The legislature appropriated \$10,000 for an infirmary, which has already been completed, and is pronounced by everybody one of the nicest in the country. Six thousand dollars was appropriated for the enlargement of our shops, which has given us a great deal of additional room for the development of our mechanical department.

The legislature appropriated \$7000 for each of the two years to pay for student labor. Every student who enters the college is required to do a certain amount of labor, which is a part of his education, and for this he receives no pay; but, in addition to this, students may put in their spare time doing practical work, for which they receive eight cents an hour. Out of an attendance of 604 last session, 386 did practical work to help pay their expenses. This shows that only about 200 failed to do pay work, and most of these were textile and engineering students, whose whole time was taken up with practical work in their departments, for which they receive no pay. The work done by students is of every kind, and all work here is honorable and the worker is respected. The students milk all the cows in the herd of more than 100; they clean the barns and feed all the stock; they do all the work in the creamery in the way of separating the milk and making the butter; they do all the work in the greenhouses and in the horticultural department; they do all kinds of work in the agricultural department from running buggy plows down to ditching and clearing land; they police all of the buildings used for college purposes and the dormitory; they run the barber shop and attend the bathhouses, and do everything that is to be done around the college upon the principle that if the work does not honor them, they will honor the work. The overalls and the brogan shoe is as much respected as the overcoat and the patent-leather kid.

Tuition is free to all Mississippi boys and young men, their rooms in the dormitory cost them nothing, and their board this session has averaged less than \$6.25 a month. We have given them board, lodging, electric lights, steam heat, hot and cold baths at all times and steam laundry for all of their clothes for less than \$8.70 a month, and for no month over \$8.75. In addition, a boy may pay most or all of this by work. Many of our students are paying practically all of their expenses after the first year by work, and many more are reducing their entire expenses, including clothes, books and traveling expenses, below \$100. It requires about \$45 for a boy to enter here the first year, as he must buy a uniform, pay a yearly medical fee of \$5, which entitles him to all medicine and medical attention, including the services of a trained nurse that he may need during the session; buy books, and pay a \$5 matriculation fee that entitles him to free tuition for five years. It will then require about \$55 more for him to complete the session, since he cannot earn as much money the first year as afterwards, preference of work always being given the boys who have proved themselves during the previous sessions.

Having received so many letters from young men desiring an education, but unable to secure even the \$100 necessary to put them through the first year here, I determined to devise some plan by which a boy can come here without a dollar, and if he has the grit and determination, can finally get an education. I have

therefore organized what I call a "Practical Working Boys' Course," whereby a boy can come here with no money at all, and work during the day and be taught an hour every night and such days as the weather will not permit him to work outdoors. These young men are not in the dormitory, but live out in a separate house nearly half a mile from the campus. They are really not students at all the first session, but only prospective students. They are paid what their work is worth, and charged nothing for the instruction given them. During this working year they can accumulate enough money to enter regularly the second session. Even should they never enter the college regularly, they have had a most profitable year, as they have learned all about improved agricultural implements and how to handle them, all about improved stock of every kind and how to feed them and breed them, as well as about scientific farming in all of its details. They will be much better citizens and much more progressive men than if they had not spent such a year here. We have enrolled sixteen of these boys this session, which is the first year the course has been in operation. With such a course as this there is absolutely no excuse for any boy in Mississippi who has no one dependent upon him remaining ignorant and unprogressive.

Our State is rich in the undeveloped material wealth, but richer still in the undeveloped and unskilled young manhood of the Commonwealth. What a great blessing to such boys as I have described above would be a few scholarships such as have been advocated by the editor of the Manufacturers' Record, who is doing so much for the development of the South!

While this college is doing so much for the poor boys of the State, and while more has been done by our legislature than by the legislature of any other State in the South, yet there is a very great demand for scholarships and loan funds to help these working boys, especially in their junior and senior years, as during these years they have very little time to do outside or pay work. Mr. W. C. George of Greenwood, Miss., has established a James Z. George scholarship here in the memory of his lamented father, the late Senator James Z. George, who was, until he died, a trustee of the college and one of its most faithful friends. This scholarship pays \$250 and is awarded in the freshman year. With this help a boy has no trouble in completing the other three years. This is the only outside help the college has ever received for the benefit of deserving boys, but more is needed, and help for this purpose from any source will be welcomed. I hope the influence of your most valuable paper may induce many Southern men of means to come to the relief of the industrial schools of this section.

I am trying to make the college of benefit not only to the boys and young men of the State, but, through farmers' institutes and other agencies, to serve every class of our people and to help in every movement that has for its purpose the industrial and material development of Mississippi.

Wm. Farr, president and general manager of the Piedmont Electric Co. of Asheville, N. C., in a letter to the Manufacturers' Record writes: "At present we are doing all of the electrical work we can handle, being engaged on work in several of the surrounding States. We think that from present indications there will be a good deal of this work within the next few months."

POTENT INFLUENCE FOR MISSISSIPPI'S DEVELOPMENT.

By J. C. HARDY, President of the Mississippi Agricultural and Mechanical College.

[Written for the Manufacturers' Record.]

As an encouragement to the industrial workers of the South, I desire, in accordance with your request, to present a brief account of the growth and development of this institution during the past few years.

This college was established in 1878, and opened its first session in 1880, with Gen. Stephen D. Lee as president. It was a success from the beginning, and too much praise cannot be given to General Lee and his board of trustees for developing here against great odds such a splendid industrial spirit as has always animated every student brought under its influence.

General Lee was succeeded in May, 1899, by Gov. John M. Stone, who, as governor of the State, was for twelve years president of the board of trustees. Governor Stone was president for only eleven months, having died in March, 1900. He was succeeded by the writer of this article, who was elected president in the following April. Thus it will be seen that I am now just entering upon my fourth year as head of the institution. During this time the school has about doubled in attendance and in equipment. The average yearly enrollment from the beginning of the school had been 308. During the session 1900-1901 we enrolled 515; during session 1901-1902, 604, and during the present session 655, even though this session we prohibited every student from our preparatory department who was within reach of a preparatory school at home.

Our course of study has also been broadened and greatly enriched. A department of dairy husbandry has been established, and special courses have been organized in agriculture, horticulture, chemistry and veterinary science. An engineering school has been organized, with departments of mechanical engineering, physics and electrical engineering, civil and rural engineering, geology and mining engineering, and a textile

school has been built and equipped at a cost of more than \$100,000. This school has been pronounced by competent judges as the best equipped textile school in the world that gives its whole attention to instruction in cotton manufacturing.

The effects of this school may already be seen in the large number of cotton mills that have been built since its establishment. More cotton mills have been built within the last three years than during the entire history of the State, and, as I stated in a recent communication to the Meridian Star, the profits from only the additional mills that have already been built will more than pay the cost of the original construction and running expenses of this school, to say nothing of the additional employment these mills have given labor and the increased value of all land and property where they have been located.

The last legislature recognized the increasing usefulness of this institution and gave us an appropriation of nearly \$250,000 for support and additional buildings and equipment during the years 1902 and 1903. Forty thousand dollars of this was for a building to be used as a home for the sciences pertaining to agriculture. This building was dedicated on the 17th of this month by the laying of the cornerstone by the grand master of the State and by appropriate addresses delivered by Hon. James Wilson, Secretary of Agriculture, Washington, D. C., and by Hon. D. A. Tompkins of Charlotte, N. C. We had with us the entire student body and faculty of more than 500 of the Industrial Institute and College for Girls over at Columbus, a representative committee from the State University at Oxford, many schoolmen from every section of the State, many members of the legislature, the governor, the State superintendent of education, together with other State officers and congressmen, and an assemblage of more than 3000 citizens of the State, the rail-

THE BIRMINGHAM DISTRICT.

Iron Purchases Being Put Off Until the Last Moment.

(Special Cor. Manufacturers' Record.)

Birmingham, Ala., May 11.

For the past week there have been no sales of iron to speak of, and while inquiries indicate the widespread interest in the buying field, consumers are stopping there, putting off purchases until the last moment. As a consequence, more iron has gone to the yards the past ten days than for a long time before.

Many orders calling for delivery by July 1 are practically filled, and while waiting for new trading there is accumulation. This has not reached any extensive volume. Notwithstanding these things, the furnacemen are confident. While optimistic opinions are prevalent, and without question predominant, there is an undercurrent of belief that there will yet be a lower range of cost. Some think, or profess to think, that ere the summer is out the price will be on a basis of \$16 for No. 2 foundry. No man who makes or has anything to do with making iron will even entertain this idea. On the other hand, these insist, and with a show of earnestness that is convincing, that the price is bound to go up instead of down.

Next to pig-iron, Birmingham is interested in its immense lumber trade, which has grown to be one of the most extensive jobbing interests of the city. In this prices are stiff, and demand satisfactory, with enough inquiries to indicate healthy sales for some time to come. The mills are full up on orders, but able to fill new ones in good time, and the volume of business is large. There is a heavy demand for trestle and framing timbers, which bring a good price, in some cases a premium. Several big sales are in sight locally. The Moore & Handley Hardware Co. building will require a million feet, the Birmingham Fertilizer Co.'s new plant a million, and the rebuilding of the Southern sewer-pipe plant, recently burned, fully as much. These orders will keep nearby mills busy for some time. The sash and blind people are also figuring on what will be needed by the immense 10-story First National Bank building, now being pushed.

As the time grows near for a new contract with the coal miners, July 1, the furnacemen are preparing for whatever may come, though there is a general impression that there will be no trouble in reaching an agreement this year.

It is learned that the United States Steel Corporation is absorbing all the loose iron it can find in the South, looking especially to the low grades.

Two of the furnaces of the Tennessee Company at Bessemer are out as a result of an accident last week, which did \$10,000 worth of damage, and the other for repairs in the regular order of events. The first will not resume work for several weeks, but the second will be out only about seven days. Two stacks of the Woodstock Company at Anniston are out, leaving no iron being made now. The furnaces of the Sheffield Iron & Coal Co. at Sheffield are being made practically new. The stacks are larger than before, while it is expected to bring the capacities up to something like 300 tons each a day. It is likely that no furnace, new or old, not now at service will be fired up before the new contract is made with the miners. While there are no fears of trouble, all think it best to wait. Many of the furnaces now in blast have been making phenomenal records lately. The little Williamson, built for seventy-five tons along old-fashioned lines, has been giving forth 100 tons a day with as much ease as it used to make eighty-five. It has always done a little better than it con-

tracted for, but never so well as lately. One of the Sloss-Sheffield stacks, built for 175 tons, made one day last week 202 tons, and has been hovering around 200 many of the other days recently. And what is more to the point, the per cent. of foundry iron is also exceptionally large.

In a quiet way it is rumored that the Republic Iron & Steel Co. is preparing for some big construction work in the Birmingham district. The new work will include some manufacturing plants not now owned in this section, and represent several hundred thousand dollars. The Republic Company has the only 300-ton furnace in the district now, and is rebuilding its two old ones for the same capacities.

It is understood that as soon as the big rush of railroad work now on is complete there will be a large number of new coal mines opened in and around this mineral district. Several companies are preparing to open places in Blount county, and enlargements and new work are contemplated in Bibb county, where the Bessemer Land & Improvement Co. has large openings, and the Galloway Coal Co. is getting ready to ship. H. W. L.

GROWTH OF WILMINGTON.

Part Played by a Railroad in Its Development.

The annual meeting last week of the Wilmington (N. C.) Chamber of Commerce was the semi-centennial session of that body. The chamber elected as officers, president, J. Allen Taylor; vice-president, S. P. McNair; executive committee, John A. Arringdale, John E. Crow, I. M. Bear, M. S. Willard and L. B. Rogers.

In his annual report the retiring president, Mr. James H. Chadbourne, presented a comprehensive survey of the work done by the chamber and its results in increased commercial and industrial importance of Wilmington. He described the operations of the chamber and its committees, its promptness to spend money whenever the prosperity of the community is to be aided, and its plans for further activities. He dwelt especially upon the part played by the Atlantic Coast Line in the development of Wilmington, and said:

"To speak of the growth and prosperity of Wilmington without mentioning the Atlantic Coast Line would be like the play of Hamlet without the character Hamlet. The Atlantic Coast Line is a large portion of Wilmington, indeed, a very vital portion. Our citizens realize this, and are proud that the old Wilmington & Weldon Railroad was the parent road of such a magnificent system of roads as the present Atlantic Coast Line—a model railroad and managed by men each an expert in his profession."

In conclusion Mr. Chadbourne said:

"I desire to see this chamber inaugurate a movement for the conversion of the battle-ground of Fort Fisher into a national reservation similar to those already established at Gettysburg, Chickamauga and elsewhere. Viewed in any aspect, the battle of Fort Fisher was a great event. There occurred the greatest bombardment that has ever occurred since the invention of gunpowder, and one of the most heroic struggles against overwhelming odds that ever took place in the world. It was the last stronghold and the only remaining gateway for the supplies of the Confederacy, and a point of vital interest to both governments. Since the close of the war the inlet through which the fleet entered, after destroying the fort, has been closed by a magnificent and costly piece of engineering work by the government, and there is now dry land where a great navy rode at anchor. The peninsula could be made one of the most attractive

reservations in the country, and would be visited by thousands of people from all parts of the country at all seasons of the year. I hope the chamber will take hold of this matter in earnest and press it upon public attention, and if so I feel assured it will succeed."

Gold in Alabama.

Editor Manufacturers' Record:

We have unquestionably found gold on the banks of the Coosa river, in Talladega county, Alabama, and we think we have found it in great quantities. The following analyses of our dirt or clay were made by the N. P. Pratt Laboratory of Atlanta, one of the best in the South:

February 13, 1903.....	\$179.00 per ton.
February 20, 1903.....	65.40 "
April 24, 1903.....	46.80 "
April 24, 1903.....	51.80 "
April 24, 1903.....	120.00 "

By G. W. Lehmann & Son, chemists, 332 South Street, Baltimore, Md.:

March 12, 1903.....	\$26.80 per ton.
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By Eugene A. Smith, University (Tuscaloosa) Alabama, State geologist, professor of chemistry at the University of Alabama:

October 27, 1902.....	\$128.15 per ton.
October 27, 1902.....	29.97 "
October 27, 1902.....	16.51 "
December 27, 1902.....	59.54 "

By J. C. Long, chemist, Birmingham, Ala.:

April 25, 1903.....	\$79.84 per ton.
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These samples of dirt were taken at random from about four acres from about the surface to nine feet below the surface. Nine feet below the surface it assayed \$120 per ton. The gold is in the sand or clay, and is situated within 250 yards of the Coosa river. No mystery or secrecy about it, and our find is open to the inspection of all. It is our intention to begin development at once. We have been so dazed by these analyses and the greatness of our find that we have not had time to formulate any definite plans. Enclosed I send you a clipping from today's Hot Blast, showing the officers and organization of the company, comprising solid business men of Anniston, Oxford and Birmingham, who would not send their names to this company if they did not thoroughly believe in it. H. DE BARR.

Forests of Florida.

The forests of Florida are one of the State's greatest sources of revenue—a revenue that is being consumed with great rapidity. Speculators from regions farther north have lately been buying and cutting large areas of forests in Florida, and the timber supply is greatly diminished.

In reply to inquiries concerning Florida forests, Mr. George B. Sudworth of the bureau of forestry has supplied the following information:

The wooded area of the State is estimated at 37,700 square miles, or 70 per cent. of the total area, much of which is occupied by merchantable timber. Florida forests have not suffered greatly from fire in the past, chiefly because much of the State was uninhabited and unfit for agriculture or grazing. Moreover, numerous streams and swamps intersecting the pine forests greatly lessened widespread danger from fire.

The greatest increase in the cutting of timber in Florida appeared from 1890 to 1900, when the previous lumber product of the State was doubled.

Great destruction has been done to the pure pine forests by the injurious method of "boxing" trees for turpentine, thus killing the older growth and allowing fire to prevent reproduction.

Because of the increasing demands upon the State's forests and the general attention which the subject of forest pro-

tection has received, interest has lately been aroused in Florida for the protection of the forests, and in the need of additional forest legislation and enforcement of existing laws. The most urgent needs are for an adequate fire law.

Testing for Oil at Edna.

A correspondent at Edna, Texas, of the Manufacturers' Record writes:

"Northern capitalists have let the contract for a test oil well to be bored near Edna. The piping, casing and well machinery is now on the ground, and work is expected to commence this week. Prof. J. Opperman, the Pennsylvania oil expert, located the well. He pronounces the surface indications to be of the very best, and predicts that enormous quantities of gas and gushing wells of oil will be found. The well is only a mile from the N. Y. T. & M. R. R. This section offers the best inducements to the investor of any I have ever visited. The land is rich, and for raising truck, corn, oats, fruits, etc., has no superior. Rice is successfully grown in this county. It is the finest stock country in America. Cattle, owing to the mild climate, can be carried the year round without feeding other than prairie grass. I am told by the doctors that for healthfulness it is unsurpassed. Being near the coast, we have a delightful and invigorating breeze day and night. The people are law-abiding, intelligent, whole-souled, and will extend a cordial welcome to the stranger within their gates. With the successful cultivation of rice, tobacco, all kinds of fruits and truck, and the strong probability of finding of enormous quantities of gas and oil, there is not a place in America today that offers better inducement for the investment of capital than Jackson county, Texas."

The Search for Oil.

Mr. C. W. Lyman, secretary of the Rayne (La.) Progressive Union, in a letter to the Manufacturers' Record says that the union has decided to offer a cash bonus of \$1500 to any firm or individual finding oil in paying quantities within three miles of the town or spending as much as \$15,000 in the effort to do so. He adds:

"There is an abundance of petroleum gas escaping from the ground in the territory mentioned, and it may be ignited at any time. This, with our location and other signs, convince us that there is an excellent chance of finding oil in paying quantities. We are directly on a line between the Jennings field and that near Lafayette, and just fourteen miles from the former."

Ginning of 1902 Cotton Crop.

The census office announces from reports of cotton ginneries that there were ginned of the crop of 1902, 11,078,882 running bales, equal to 10,630,945 bales of the 500-pound standard, or counting round bales as half-bales, 10,588,250, valued at \$501,897,134. The value of raw cotton exports in 1902 is given at \$200,651,819, making it the leading article in American exports, and the value of the cotton crop of 1902 produced in the States included in the Louisiana purchase is given at \$113,885,044, an amount greater by more than \$5,000,000 than the original price paid to France for the territory, with compound interest at 2 per cent.

The Southeastern Cotton Buyers' Association will soon apply for a charter, and will urge the promotion of similar associations in every State in the cotton belt, with headquarters at Atlanta or New Orleans, with the object of bringing about conditions that may give the South control of the cotton market.

The North Alabama Oil Field.*Editor Manufacturers' Record:*

I believe the public will be interested in knowing that oil and gas wells have been drilled or are now being drilled at Falkville, Hartselle, New Decatur, Bangor, Reid's Gap and near Huntsville, and in Etowah county, Alabama.

There are two wells near Falkville, one of which is down 2000 feet and ready to shoot. As it does not pay to shoot one well, the company is waiting until its other wells are completed. These wells show oil of good quality, and one a capacity of forty barrels. They are capped and under control of a watchman. They are on property controlled by the Great Southern Oil & Development Co.

The Hartselle well, now drilling, is a good gas well, and the oil indications are fine. This well is controlled by the Moulton Oil Co.

The Burch well, now drilling on the lands of Mr. Gunn, near New Decatur, is guarded so closely that it has been impossible to learn anything definite of the results, but information has leaked out that this well has struck oil of good quality, and with a pumping capacity of seventy-five to eighty barrels per day. This property is surrounded by the lands of the Great Southern Oil & Development Co. This company has arranged for a new standard rig, and will drill a number of wells on its lands in the same locality. The first one will go down near Cedar Lake, in sight of the tracks of the main line of the Louisville & Nashville Railroad.

Of the wells at Bangor, one has been stopped on account of the loss of a string of tools in the well, and the other is still drilling.

At Reid's Gap work is to commence on a new well not far from the old gas well that was bored in 1884. And the Reid's Gap Oil, Gas & Mining Co. has issued \$100,000 of guaranteed bonds, which it has arranged to sell to raise the funds to drill eight gas and oil wells on their lands. North of Decatur, Ala., near Huntsville, the New York-Alabama Oil Co. is now drilling wells on its property, and the parties controlling the Lucas holdings between Bangor and Falkville are arranging to drill on these lands. In Etowah county, Kentucky, parties have also arranged to drill a series of wells. Within the next sixty to ninety days very important developments will be made in this field, and the question will be settled as to the production of both oil and gas in large and paying quantities in North Alabama.

It would make this article too long for me to describe in detail all the information I have been able to collect as to the future developments in this new oil district.

One favorable indication is the fact that there has been no outside speculation or stock offered for sale by any of the parties or corporations now controlling this new oil and gas field, and the public know very little of their movements. At the same time it is true that a number of Northern capitalists and oil experts have been in this city and the towns along the Louisville & Nashville Railroad in the above counties in the past thirty days.

ROBERT R. ZELL.

Birmingham, Ala.

Locomotive Builders Busy.

Mr. C. M. Walsh, general manager of the Falls Hollow Staybolt Co. of Cuyahoga Falls, Ohio, in a letter to the Manufacturers' Record writes: "Indications were never brighter than at present in the iron business. Locomotive builders have more work than they can take care of, and are not receiving any orders for

prompt delivery. The railroads throughout the United States are crowded with work, and we see no evidence of any tendency towards less activity in most lines of business."

Demand for Railway Supplies.

In a letter to the Manufacturers' Record the Carlin Machinery & Supply Co., Allegheny, Pa., writes:

"As an immense amount of railroad work is being pushed through in this section of the country, and as we sell largely to contractors, we are extremely busy in furnishing this class of machinery. In the machine-tool line we are doing a fair amount of business, and boilers and engines are very active, and we do not anticipate any slackness in the coming year's business."

ENORMOUS IRON CONSUMPTION.

Stocks Declining. Notwithstanding the Unprecedented Production.

The Iron Age says:

"Our monthly blast-furnace statistics are particularly interesting, because they show that production is going on at a tremendous rate, the output in April having been very close to 1,650,000 tons. Even that record output promises to fall behind the tonnage of this month, which we entered with a capacity of 383,897 tons per week, as compared with 376,576 tons on April 1. On the basis of these figures the May production should reach 1,700,000 gross tons.

"The surprising and most significant fact, however, is that the stocks reported, which do not include the steel works using their own pig, show a decline from 170,757 tons on April 1 to 162,742 tons on May 1.

"These figures are eloquent proof of the fact that consumption of pig-iron is taking not alone our own enormous production, but also the current importations. Statistically, the situation is therefore thoroughly sound.

"Yet consumers are holding off, particularly in the foundry trade, and their attitude seems justified to some extent by the facts. Prices had gone to an unnatural figure, from which they have been and are still receding. Last year leading interests in the South made a frantic but ineffective effort to hold down the market to the basis of \$12.50 for No. 2 foundry iron at Birmingham, and yet the market went as high as \$20. At the time they openly proclaimed that \$12.50 was satisfactory; now some of them are struggling to hold values at \$17.50, when outside interests are selling down to \$15.50. At the former figure there is still a chance for importations, and we are not safe even at \$15.50.

"These are elements in the favor of the buyers. On the other hand, the sellers may point with confidence to the tremendous consumption on the part of the foundries, and to the fact that in spite of large commitments for castings, the foundries have not covered. A rush is bound to come; it remains to be seen at what price the deadlock will be broken.

"Some ridiculous reports have been circulated in Wall street concerning a sudden break in billets in Pittsburg. There is no truth in them. There is still scarcity of steel in that market. As a matter of fact, the steel market in Pittsburg has become a very restricted and unimportant affair. The great mills either roll their own steel or have sliding-scale contracts with the great steel works, which gives them the metal at much lower prices than those quoted in the market. The latter is restricted to the relatively small quantities which the smaller outside mills must purchase from time to time. The Eastern market, with its larger number of independent rolling mills, which must buy steel, is more important."

The Nashville (Tenn.) Grain Dealers' Association has been organized, with Messrs. Byrd Douglas, president; J. H. Wilkes, vice-president, and W. B. Cornelius, secretary and treasurer.

FOREIGN TRADE.

This department is designed to set forth opportunities for the extension of the trade abroad of American manufacturers, and to record facts about the rapidly-developing commerce of the South.

AWAKENING IN SPAIN.

Conditions Ripening for Expansion of American Trade There.

In a letter to the Manufacturers' Record Ramon S. Diaz of 14 Duke of Alba street, Madrid, writes:

"Spain is an undeveloped country in almost all branches of labor. In fact, it is a country half depopulated (above all in its central tablelands) and in fine condition for commercial conquest. Those of us who travel the country constantly note a tendency of enlightenment in the spirit of the race. I, who frequently journey through Spain, speaking with people widely scattered, observing the life of the country and of the workshop, entering in turn the counting-rooms of bankers, the offices of the manufacturers and every place where business is to be done, note the great longing which is awakening in the heart of the nation. The whole people are moved by the pleasing sensation of novelty. An unconscious longing for the new life plays upon them, urged on by the irresistible natural law of progress. And so, in conversation even with a peasant, who does not even read a periodical, one observes continuously a moral elevation, an instinct of progress.

"It is unquestionable, although the government does not so desire, that the people are transforming themselves and going onward, and wherever a piece of machinery is introduced there has the light come to the brain at the same time.

"Everywhere in Spain the new life throbs. Already it is no disgrace to be a merchant. The journals encourage the rich landed proprietors to make scientific farmers of their sons, and there is a general desire to engage in trade. The agricultural and industrial revolution cannot long be delayed, for the political revolution is already commencing.

"I believe that even before many years the masterful work of North America will be able to export millions of dollars to Spain. The United States will have to compete more particularly with Germany; but I am convinced that the tremendous push of the American people—young, free from onerous military burdens and richer naturally—must win. We have here a market, primitive and progressive, and anxious for development and expansion. North America must give attention to the three means that are to aid in importing into Spain all those things which its extraordinary industrial fecundity produces:

"1. Make every possible effort to conclude a commercial treaty with Spain.

"2. Arrange catalogues and do correspondence in the Spanish language, as the Germans do.

"3. Take great care in confiding agencies to persons of intelligence, who are acquainted with business methods, who travel over the country frequently, who may discover new fields and advise their manufacturers of new needs and the way to defeat competition. The agent can be all in all in controlling the market.

"In fact, we have here a great market for the products of the United States. I have been studying these questions for a long time. Those products are much advertised here by me, but my few connections in the United States on one side and my not being able to go to your country now makes it very difficult for me to transact business with North America.

"I am in excellent condition to sell here American products. My brother and myself go three times a year through the peninsula to sell a national product whose principal material—glass—we buy in Belgium for the manufacture of looking-glasses. We would be well qualified for the importation and introduction of American products. We have already correspondents in all the cities, and we could have good, trustworthy subagents, who, moreover, could be constantly watched by us.

"I am ready to enter into an agreement with the producers of the United States to be their selling agent in Spain, and I would give the guarantees and information they would require. The following articles, among others, would find a market here:

"Fine kid for shoes, in competition with Germany and France; harnesses for horses, carriages, automobiles, railroad material, steel, glass plate for the manufacture of looking-glasses, in competition with Belgium; agricultural implements, carpets, all kinds of cotton and linen goods, in competition with England; sanitary porcelain for water-closets and wash-stands, typewriters, office furniture, woods, and, generally speaking, all inventions and novelties.

"Your great paper deserves nothing but eulogies, and I beg to thank you for your extremely kind letter, written in Spanish, so full of meaning as to the business with our country."

FOR TRADE WITH EGYPT.

Direct Steamship Communication Strongly Urged.

P. Franco of Alexandria, Egypt, in a letter to the Manufacturers' Record regarding the extension of American trade in Egypt says:

"As I have written you, American manufacturers are still working in respect to exports on the ancient plans of Europe. New methods are now used by continental firms, based on large credit and freedom, and particularly on agents' activity; they think that some losses and sacrifices may be compensated by large orders, wide reputations; they make the part of risk, like firemen make the part of fire. That is what American manufacturers will not understand, because they actually find an easy market at home for their products. But when production will increase too much over the demand, and I think that time is arrived, they will be obliged to count with the foreign markets, and they will not be prepared to compete successfully without doing larger sacrifices than they would have done had they previously accustomed foreign people to buy American goods.

"There are, of course, a great many opportunities in Egypt for the introduction of American products, but what your manufacturers must consider is that articles have already been sold here several years at known prices and terms; that the public is accustomed to their shapes, qualities, agents and mark, and that for selling the same goods with any chance of success it is necessary to submit to the laws of the market and not to attempt to change these rules.

"A line which would find a very good market here is leather, with derived products—show leather, carriage leather, shoes, saddles and harnesses, belts and all connected industries. The terms, according to the branch, vary from two to six months' payment after receipt of goods c. i. f. Alexandria, bills signed on remittance of documents here through any bank or agency.

"I should suggest that a direct line of steamers under the American flag be-

tween New York and Alexandria would largely develop and facilitate business between the two countries and would make for itself very good profits. A fortnightly service would be sufficient in the beginning, with about 4000-ton steamers. They would certainly have always enough goods to carry from America, and in the return they might take sugar, Egyptian cotton, hides and other goods which are already sent to America in German vessels. In winter they would have, during at least five months, about five or six thousand tourists. Their itinerary might be New York, Alexandria, Port Said, Smyrna, Constantinople, Athens and New York, touching thus the most important Levant ports and making the American flag known there and spreading America's products on these markets.

"Several important branches of American products cannot be properly and successfully imported in our country on account of the lack of direct communication. I shall only mention two of them, which will suffice to give you an idea of the importance of such a problem. I mean coal and lumber. It is almost impossible to estimate what changes would flow from the inauguration of such a steamship line, both in political and commercial fields.

"I shall be glad to give every information which may be desired on that subject, and generally on everything about industry and commerce in Egypt and the Orient."

SOUTH AFRICAN CHANCES.

The Financing and Construction of Public Utilities.

In a letter to the Manufacturers' Record Mr. William A. Haygood of Grahams-town, Cape Colony, South Africa, writes that wishing to organize a company to manufacture cement, of which a great quantity is used there, he would like to obtain accurate scientific information as to the material required, the methods used and appliances employed, together with information about kilns, grinding, packing, etc. He further writes:

"If I can secure the co-operation of an American contracting engineering firm which is in position to construct electric-light plants and water-works, street railroads and other public utility works, and can arrange to handle authorized municipal bonds in payment, I am in position to secure large and profitable contracts.

"Such a firm should send out a man competent to make preliminary surveys, suggest plans, estimate costs and get all details ready for closing contracts by me. I have learned the business methods and mental habits of those people, and know how to negotiate with them. They are dependent for floating their bonds on London capitalists. The latter, apparently desiring to impress the colonial with their importance and his dependence, keep him waiting, hat in hand, at the back door. This the colonial resents, and here is America's opportunity to overcome English prejudice against American machinery and jealousy of American progress. Bid for their public works on a basis justifying the taking of their bonds in payment, and the American has the inside track.

"Of course, this idea would involve a thorough investigation of conditions as they relate to the question of security.

"There are five cities authorized to issue bonds for public improvements which will be self-sustaining in themselves in this colony alone, aggregating \$15,000,000, all waiting till London capitalists are ready to grant them a hearing.

"Should I be instrumental in placing these bonds and contracts, I should favor

branch manufactories here controlled by American capital and operated under American skill, or supervision at least, to make such supplies as cement, brick, sewer pipes, etc., here and save the freight.

"An American construction company organized for the purpose of securing a part of this trade need invest but a small sum in investigations, with the possibility of securing large and profitable contracts.

"Time is a controlling element in this matter. Let the opportune moment pass, and America's 'open door' will be found shut. Witness the regulations of Cape Town Exhibition, from September, 1903, to February, 1904, limited to British and colonial products. South Africa has cost them much, and they wish to reap the benefit alone. If Americans are up and at it they can secure much business before our deliberate English cousins are awake.

"Knowing your familiarity with the parties most likely to be able and willing to assist me in capturing a good proportion of the business above described, I take the liberty of asking you to put me in touch with such of your advertisers, or others, as you think best."

Goods for India.

Valabhdas Ranchordas & Co., of 19 Humum street, Bombay, India, writes to the Manufacturers' Record that there is a demand in India for a mass of American goods which, if put in the hands of competent Indian houses, would be sold in large quantities. They write that as nearly all agricultural work is done by hand, the implements most in demand are shovels, plows, picks, etc. There is a good field for belting for mill purposes, but makers should note that it is sold in India by the foot and not by weight. American manufacturers have not yet touched the Indian field for mill stores. Many bicycles and large quantities of bicycle accessories are sold every year. There is a good opportunity in the Calcutta presidency and in upper provinces for electric fans, while low-price sewing machines, lamps, typewriters, watches, clocks and a vast variety of hardware could be sold if properly handled.

Vincent Yeshant & Co., Elphinstone Circle, Bombay, India, write to the Manufacturers' Record that they would like to handle for American firms builders' and household hardware, paints, varnishes, oils and window glass, vehicles and harness, house furnishings, dress goods, prints, ginghams, sheetings, shirts, blankets, towels, table linen, hosiery, etc., hats and caps, boots and shoes, clothing, jewelry, musical instruments, paper and stationery, groceries, canned or bottled goods, wines and spirits, drugs and fine chemicals.

Lime for Spain.

In a letter to the Manufacturers' Record Vicente Merlo of Valencia, Spain, writes that he is in correspondence with American merchants regarding the handling in Spain of carburet of lime, and that he will be greatly pleased to introduce American staples into his country, but that requirements as to form of payment demanded by some manufacturers makes dealings with them impossible.

Wares for Warsaw.

Henryk Stande, 151 Marszalkowski, Warsaw, writes to the Manufacturers' Record that there is a market in Russia for American wringing machines, meat-choppers, spoons of tin, pewter or of plain yellow metal, leathers of all kinds, clocks and watches, jewelry, cheap ornaments and household goods. He desires to get into correspondence with American manufacturers in these lines.

Notes.

Henry Droege, 38 Roedingsmarkt, Hamburg, Germany, writes to the Manufacturers' Record that he would like to represent in Germany American manufacturers of brewery specialties not already sold in Germany.

In a letter to the Manufacturers' Record Mr. D. Marcus of 62 St. Paul Square, Birmingham, England, writes that he desires to get into communication with American manufacturers of sticks from which penholders are made.

Mr. J. Heaton of the Yerec & Jones Company, Wellington, New Zealand, writes to the Manufacturers' Record that his company is not looking for any additional agencies for American manufacturers other than manufacturers of office specialties.

Hilali Bros. & Co., No. 18 China Bazar Lane, Calcutta, India, write to the Manufacturers' Record that they would like to get into communication with American manufacturers of engines, boilers, beltings and other mill requirements, and also with handlers of cheap American oils.

Carlos Eduardo of Guayaquil, Ecuador, writes to the Manufacturers' Record that agricultural machinery is little used in his country, as the soil is so fertile that it produces almost everything without any labor. He adds that there is a demand for American-made shoes and hats, watches and clocks, jewelry and other ornaments.

A. A. Hanelin of Odessa, Russia, writes to the Manufacturers' Record that he would like to get into communication with American manufacturers fair in prices and giving long credits, from four to six months and more, of metal goods, farm implements, sanitary goods, drugs and chemicals and exporters of iron, steel, zinc and lead. He adds: "Every possible kind of American product interests me, and, thanks to the splendid harbor of Odessa, every kind of salable goods can here find a quick market, provided conditions of sale are just."

Tree Planting in Alabama.

A planting plan has recently been prepared by the bureau of forestry for 1800 acres of land in Cullman county, Alabama, owned by Emil Ahlrichs and valued at from \$1.25 to \$3 per acre. The planting will be done in several different localities, but all in Cullman county. Work will begin as soon as growth ceases next fall, and will continue through the winter, except in freezing weather. The first season's work will include the planting of loblolly-pine seedlings collected in the forest on a tract of 160 acres of open woods. Two hundred and eighty acres will be planted with chestnut and white and post oak. A seed bed will be prepared for the raising of loblolly pine for a tract of 640 acres, as it is considered not advisable to use entirely stock collected from the forest.

All this planting is based on the fact that while immense quantities of loblolly are being cut in that locality, there is little or no reproduction on the land in question, due chiefly to annual fires set to improve the pasture. Mr. Ahlrichs will have a fire-patrol system.

It is purposed also to treat a tract of 640 acres to improve the natural reproduction by the prevention of fires.

Labor may be obtained at \$15 per month; hence the work can be done at very small cost. It is estimated that the planting will cost only from \$2 to \$3 per acre.

Loblolly pine is to be planted for the production of lumber, chestnut for posts and telegraph poles, and oak for railroad ties.

RAILROADS.

[A complete record of all new railroad building in the South will be found in the Construction Department.]

SALEM & EASTERN.

A 300-Mile Electric Line Planned in Missouri and Arkansas.

Mr. W. K. Palmer, chief engineer of the Salem & Eastern Railway Co., writes the Manufacturers' Record from Kansas City, Mo., as follows:

"This road as planned will be nearly 300 miles long, extending from Poplar Bluffs, Mo., in a southwesterly direction through Doniphan, Salem, Mountain Home, Yellville, Harrison, Huntsville to Fayetteville, Ark. It is to cross the 'Frisco' line between Mammoth Spring and Hardy at a point known as 'Many Islands.' The road is to be constructed the same as a standard steam railway, with a view to carrying both freight and passengers, as it runs for the most part through a region which has no railroad facilities at all. But it will be operated by electricity generated in part by water-power from Spring river, surveys for a dam and power station having been made near the 'Frisco' crossing. The road has been surveyed and permanently located from its connection with the 'Frisco' to Salem, and several miles beyond, a total distance of somewhat more than thirty miles. Mr. R. A. Youngblood, banker, of Salem, Ark., is the promoter and responsible head of the project, and W. K. Palmer of Kansas City, chief engineer."

ROCK ISLAND AND 'FRISCO.

Terms of the Deal Finally Announced in New York.

Announcement is made in New York that terms have finally been agreed upon for the purchase of the St. Louis & San Francisco Railroad by the Chicago, Rock Island & Pacific Railroad Co. These terms have been announced in a circular given out by J. P. Morgan & Co., stating that for each share of the St. Louis & San Francisco, par value \$100, the Chicago, Rock Island & Pacific will pay \$60 par value in its 5 per cent. gold bonds of 1913 and \$60 par value in the common stock of the Rock Island Company of New Jersey. Stockholders desiring to accept the offer must deposit their certificates on or before June 1 with J. P. Morgan & Co. At the time the circular was issued it was also announced that B. F. Yoakum would continue to be president of the 'Frisco' system.

This combination, as heretofore stated in the Manufacturers' Record, makes a total of 7122 miles of line for the Rock Island and 5079 miles for the 'Frisco', a total of 12,201 miles, but if the Pere Marquette Railroad, controlled by interests affiliated with the Rock Island, be considered as part of the Rock Island system, the new combination will total up 14,405 miles.

A DAVIS COAL LINE.

Connecting the Coal & Coke and the Charleston, Clendennin & Sutton.

Official advices received by the Manufacturers' Record deny the report that ex-Senator Henry G. Davis is interested in a plan to build a coal railroad from Pittsburg to tidewater on the Chesapeake bay under the name of the Central Railroad of West Virginia. Senator Davis is now devoting much of his time and attention to the construction of the Coal & Coke Railway from the Junior Coal Co.'s properties and operations in the Roaring Creek district near Elkins, W. Va., southward to a junction with the Charleston, Clendennin & Sutton Railroad, which he owns and is extending

northward. When this is completed he will have a through line of about 200 miles from the vicinity of Elkins to Charleston, W. Va., most of the way through coal lands. All of this necessitates more or less surveying and engineering work, and may have led to the erroneous report that has been circulated.

INCREASE IN EARNINGS.

Comparative Review of Railroad Systems in the South.

Messrs. John L. Williams & Sons, bankers, of Richmond, Va., in their weekly bulletin of May 9 review the gross earnings per mile of the principal railroads in the territory south of the Ohio and east of the Mississippi rivers as follows:

"The following tables show the earnings, per mile of road operated, of the eight principal railroad systems south of the Ohio and east of the Mississippi rivers from July 1, 1893, to July 1, 1894, as compared with the fiscal year ending June 30, 1902.

"This statement shows the ratio of increase in earnings per mile of the Seaboard Air Line system is considerably ahead of each of the other systems, the increase of the Seaboard Air Line being 62.7 per cent., against increases ranging from 10.5 per cent. on the Central of Georgia to 57.8 per cent. on the Norfolk & Western, the average increase in earnings per mile of all the systems being 35.5 per cent. The heavy increase in the earnings of the Seaboard Air Line system since 1894 is due, primarily, to the steady and healthy development of its local territory and to the advantages which have resulted from the extension of the system, and the amalgamation and close co-operation of the several properties formerly operated independently, but now consolidated into the Seaboard Air Line system.

"Should the earnings per mile of the Seaboard Air Line system for the last three months of the current fiscal year show the same increase as has been shown for the first nine months, the gross earnings of the system for the year ending June 30, 1903, will amount to \$4702 per mile, as compared with \$2612 per mile just ten years ago.

"Should it be practicable, on this basis of gross earnings, to operate the system hereafter at a ratio of expenses and taxes to earnings of 65 per cent., the company's net earnings will be equal to full 4 per cent. dividends on the preferred stock and about 4 per cent. dividends on its common stock. The Atlantic Coast Line is being operated at the present time at a ratio of expenses to earnings of about 60 per cent., and the Norfolk & Western is being operated at a still lower ratio.

metropolis, the metropolis of the county, with Linden, the county-seat, a distance of sixteen miles, and which will be a very fine short line, as it also connects Demopolis, quite a good town, with the Louisville & Nashville Railroad, recently built to Linden. The road runs through a level, rich black country, easily graded and very fertile, and which is a necessity. Capitalists can build this road cheap and have a paying investment, and Demopolis and Linden will subscribe or donate a reasonable amount as an inducement."

The line from Demopolis to Pensacola would be about 150 miles long.

EDENBORN'S NEW PLANS.

Louisiana Railway & Navigation Co. Succeeds the Red River Valley.

Dispatches from Shreveport, La., say that the Shreveport & Red River Valley Railway Co. has been reorganized under the name of the Louisiana Railway & Navigation Co.; capital \$12,000,000. It is further reported that an official statement says the reorganization is for the purpose of putting the affairs of the railroad on a better basis and providing for an immediate extension to New Orleans via Baton Rouge. It is denied that the road has been acquired by any other system. Extension work is already in progress between Mansura and Baton Rouge. The officers of the company are unchanged, and the incorporators as stated in the official papers are William Edenborn, president; P. McIlvried, vice-president and general manager; W. F. Taylor, second vice-president; Clarence Ellerbe, secretary and treasurer; John E. Coles, Otto Mann and Sarah Edenborn.

Significant features of the new charter are clauses which give the company the right to construct a line from New Orleans to the Gulf of Mexico, the port to remain undetermined for the present, and the right to operate steamboats in domestic or foreign trade in connection with its line.

Knoxville's Railway Prospects.

In a recent issue of the Knoxville Sentinel was published an interesting report of the transportation committee of the Knoxville Chamber of Commerce presented through G. F. Milton, Esq., chairman, bringing out in a striking manner the advantageous position of Knoxville as to railroad facilities, present and prospective. The report, which is illustrated with two maps showing the distance by shortest route, the time by quickest route and the freight rate from Knoxville to Chicago, New York, Norfolk, Jacksonville, New Orleans and St. Louis and points between, and showing railways

	1894.		1902.	Increase in
	Mileage.	Earnings per mile.	Mileage.	earnings per mile.
Seaboard Air Line.....	2,025	\$2,612	2,904	\$4,251 62.7%
Atlantic Coast Line.....	2,804	3,604	4,386	4,217 17.1%
Southern Railway.....	4,139	3,922	6,744	5,592 42.5%
Central of Georgia.....	1,410	3,800	3,800	1,845 10.5%
Louisville & Nashville.....	2,956	6,419	3,327	9,143 42.4%
Illinois Central.....	2,888	7,152	4,284	9,529 33.2%
Chesapeake & Ohio.....	1,343	7,076	1,618	10,210 44.2%
Norfolk & Western.....	1,327	6,599	1,655	10,417 57.8%

NOTE.—In the above table the mileage of the Seaboard Air Line and of the Atlantic Coast Line for 1894 includes the several constituent companies, then separate, but now embraced in these respective systems.

DEMOPOLIS & GULF.

Beginning of a Line Designed to Reach Pensacola, Fla.

Concerning the proposed railroad from Demopolis to Linden, Ala., Judge John C. Anderson, one of the organizers, writes from Demopolis, Ala., to the Manufacturers' Record as follows:

"The road has not been chartered yet, but soon will be, and will be known as the Demopolis & Gulf Railroad, connecting Demopolis and Pensacola. Our primary object, however, is to connect De-

under construction, surveyed or projected in the Knoxville district, reviews the difficulties of the past in railroad construction, sketches the work now under way, and in conclusion says:

"The products of our mountains and valleys are no longer inaccessible. The spindles of the Carolinas turn from power made by our coal. Knoxville marble adorns the public buildings and palatial homes of the great centers. The Chinese coolie finds in Knoxville coarse cloth that he needs, while the finer fabrics are not despised by the Fifth-avenue swell.

"We are in our section in the midst of an era of exceptional development in transportation, mineral and industrial lines. The very incomplete resume of what is going on ought to give every well-wisher of Knoxville and East Tennessee good cheer.

"When the federal constitution convention of 1787 was in expiring session and the unanimous vote of the States present had been recorded in its favor, Benjamin Franklin, for whom Tennessee once named a short-lived State, pointed toward a sun which was blazoned on the president's chair and said: 'In the vicissitudes of hope and fear I was not able to tell whether it was a rising or a setting sun; now I know that it is the rising sun.' So with the sun of transportation which has finally burst over our beautiful Unaka mountains and is throwing its effulgent rays on every mine, every farm and every industry in our region. One only needs to look at it. It is a rising and not a setting sun. Under its magic influence the coal, iron, marble, copper, slate, zinc, baryta, all the wealth of the mines, together with all the fruits of the field, are being prepared by skilled workmen for the use of man. By means of the many steel rails radiating from our centers of industry out through the gaps, as well as by means of a great river soon to be opened to year-round navigation, we shall pour out our cornucopia of plenty into the lap of the world."

To Build in Alaska.

Mr. F. M. Hicks of the Hicks Locomotive and Car Works, Chicago, informs the Manufacturers' Record that he has "contracted with the Western Alaska Construction Co. to furnish the entire outfit to build, equip and operate the first fifty miles of the Council City & Solomon River Railroad. This railroad is to extend inland from the mouth of the Solomon river, near Nome, Alaska, and 500 miles is projected. The Western Alaska Construction Co. is under contract to complete the first fifty miles by the 15th of July next.

"We are contracting for all of the supplies for this road, including grading outfit, rails, spikes and all tracklaying material and tools, locomotives, cars, water supply, including pumps, piping and a 10,000-gallon tank, machine-shop outfit complete, including machinery, such as lathes, drills and other ironworking machinery and tools, circular saws and other woodworking implements, and, in fact, everything necessary to put the road in operation."

Coal for the Wabash.

Concerning the report that the Goulds have purchased about sixty acres of coal lands near Fairmont, W. Va., Mr. Joseph Ramsey, Jr., president of the Wabash Railroad Co., writes the Manufacturers' Record that the Little Kanawha Syndicate has purchased quite a large acreage of coal land in West Virginia, located on the headwaters of the Little Kanawha and Monongahela rivers. As to the development of this property, plans have not yet been consummated.

Col. Thomas G. James of Sharky, Miss., a member of the levee board, having charge of the Yazoo levee below the point of Lakeview, is quoted as stating that the board will probably issue bonds to the extent of \$200,000 for the improvement work.

The sales in the Joplin (Mo.) district for the week ended May 9 were 8,916,740 pounds of zinc ore and 1,540,910 pounds of lead ore, valued in the aggregate at \$202,517.

TEXTILES.

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the Manufacturers' Record. We shall be glad to have such matter at all times, and also to have any general discussion relating to cotton matters.

Carolina Dress Goods.

In sending to the Manufacturers' Record a sample of dress goods made and bleached in South Carolina Mr. Jesse Cleveland of Spartanburg, S. C., writes: "These goods are woven on the dobby attachment at the Saxon Mills of Spartanburg county, and bleached at the Clearwater Bleachery of Aiken county, and find a ready sale for shirtwaists and ladies' dresses. All the new mills of this State are being built to make a fine grade of goods; for illustration, the Drayton Mills here will make cloth suitable for pocket handkerchiefs woven out of No. 60 thread. As is well known, the principal advantage which the South has over the North in the making of cotton cloth is in the lower cost of labor, and the chief item of expense in the making of print cloths, dress goods, etc., is the cost of labor. This is true on any variety of goods made of fine warp. The idea is to make as many yards of cloth out of as few pounds of cotton as possible. The class of goods I am sending you sells at twenty-seven cents per pound of cloth before it is bleached, while cloth for the China trade sells at only 15.675 cents per pound, while the cotton in each costs the same, the chief difference of manufacture being the labor cost, being greater per pound on the finer goods."

5000-Spindle Yarn Mill.

A 5000-spindle yarn mill will be built at Statesville, N. C., by the Bloomfield Manufacturing Co., reported last week as incorporated with capital stock of \$100,000. The company will elect officers soon and arrange to award contracts for erection of buildings and installation of machinery. The entire equipment will be purchased. It is proposed to use long-staple and Egyptian cotton and produce fine yarns. Messrs. A. B. Saunders of Statesville, H. A. Yount of New Sterling, N. C., and Charles Webb & Co. of Philadelphia, Pa., were the incorporators.

The Cotton Movement.

In his report for May 8 Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, shows that the amount of cotton brought into sight during 250 days of the present season was 10,120,824 bales, an increase over the same period last year of 281,978; the exports were 6,305,415 bales, an increase of 301,102 bales; takings by Northern spinners 1,981,208 bales, an increase of 6086; by Southern spinners 1,612,780 bales, an increase of 178,201.

Textile Notes.

Messrs. J. B. McCord and G. A. Russell of Morristown, Tenn., will establish a knitting mill.

Union Oil Co., Union Point, Ga., will not operate as a cotton mill the Sparta Cotton Mills at Sparta, Ga., reported last week as purchased.

Middle Georgia Cotton Mills, Entonton, Ga., mentioned last week as adding new spindles, has completed the installations. The new spindles number 2112, an increase in the plant's total to 5440. Messrs. C. R. Makepeace & Co. of Providence, R.

L., were the engineers in charge of the improvements.

New Iberia (La.) Cotton Mill was sold during the week to W. R. Burk as agent. It is reported he will put the mill in operation. There are sixteen knitting machines in the plant, producing underwear.

Walter Brown, recently of Baltimore, Md., has leased Dr. J. T. Bellamy's cotton mill, now idle, near Enfield, N. C. He will repair the dam, enlarge the building and install machinery for manufacturing single and double yarns, ball twine, rope and batting.

Messrs. J. H. Price, Sam R. Stevens, C. H. Stevens, E. W. Reid, J. E. Wolfe, A. C. Cherry, F. C. Andrews and associates will organize a \$5000 stock company for manufacturing cotton goods. They propose equipping a plant of twelve looms for producing fancy sheeting and novelty goods. The plant will be located at Magnolia, Miss.

About \$25,000 has been subscribed to the proposed \$100,000 cotton-mill company at Salley, S. C., mentioned last week. W. S. Peterson is interested in the enterprise, and hopes to make arrangements for permanent organization. Outside capital will be invited to invest. A water-power is available for development in this connection.

Dispatches state that B. Frank Mebane and German capitalists have purchased 4000 acres of land at Spray, N. C., as site for the establishment of a cotton mill that will contain 200,000 spindles and 14,000 looms, and of a large mill for manufacturing woolen blankets. Mr. Mebane is well known as being largely interested in the several mills at Spray.

QUOTATIONS OF COTTON YARNS.

By Buckingham, Paulson & Co., New York, Philadelphia and Chicago, May 12.

No. 10s-1 and 12s-1 warps.....	15 1/2 @ 16
No. 14s-1 warps.....	16 @ 16 1/2
No. 16s-1 warps.....	16 1/2 @
No. 20s-1 warps.....	18 @
No. 22s-1 warps.....	18 1/2 @
No. 26s-1 warps.....	19 1/2 @
No. 6s to 10s yarn.....	14 1/2 @ 15
No. 12s-1.....	15 1/2 @ 15 1/2
No. 14s-1.....	16 @
No. 16s-1.....	16 1/2 @
No. 20s-1.....	17 1/2 @
No. 22s-1.....	18 @
No. 26s-1.....	19 @
No. 8s-2 ply soft yarn.....	15 @ 15 1/2
No. 10s-2 ply soft yarn.....	15 1/2 @
No. 12s-2 ply hard.....	15 1/2 @
No. 14s-2 ply.....	16 @ 16 1/2
No. 16s-2 ply.....	16 1/2 @ 17
No. 20s-2 ply.....	18 @
No. 22s-2 ply.....	19 @ 19 1/2
No. 26s-2 ply.....	19 1/2 @
No. 30s-2 ply.....	21 @ 21 1/2
No. 36s-2 ply.....	22 @
No. 40s-2 ply.....	23 @
No. 48s-2 ply.....	24 @
No. 56s-2 ply.....	25 @
No. 64s-2 ply.....	26 @
No. 72s-2 ply.....	27 @
No. 80s-2 ply.....	28 @
No. 88s-2 ply.....	29 @
No. 96s-2 ply.....	30 @
No. 104s-2 ply.....	31 @
No. 112s-2 ply.....	32 @
No. 120s-2 ply.....	33 @
No. 128s-2 ply.....	34 @
No. 136s-2 ply.....	35 @
No. 144s-2 ply.....	36 @
No. 152s-2 ply.....	37 @
No. 160s-2 ply.....	38 @
No. 168s-2 ply.....	39 @
No. 176s-2 ply.....	40 @
No. 184s-2 ply.....	41 @
No. 192s-2 ply.....	42 @
No. 200s-2 ply.....	43 @
No. 208s-2 ply.....	44 @
No. 216s-2 ply.....	45 @
No. 224s-2 ply.....	46 @
No. 232s-2 ply.....	47 @
No. 240s-2 ply.....	48 @
No. 248s-2 ply.....	49 @
No. 256s-2 ply.....	50 @
No. 264s-2 ply.....	51 @
No. 272s-2 ply.....	52 @
No. 280s-2 ply.....	53 @
No. 288s-2 ply.....	54 @
No. 296s-2 ply.....	55 @
No. 304s-2 ply.....	56 @
No. 312s-2 ply.....	57 @
No. 320s-2 ply.....	58 @
No. 328s-2 ply.....	59 @
No. 336s-2 ply.....	60 @
No. 344s-2 ply.....	61 @
No. 352s-2 ply.....	62 @
No. 360s-2 ply.....	63 @
No. 368s-2 ply.....	64 @
No. 376s-2 ply.....	65 @
No. 384s-2 ply.....	66 @
No. 392s-2 ply.....	67 @
No. 400s-2 ply.....	68 @
No. 408s-2 ply.....	69 @
No. 416s-2 ply.....	70 @
No. 424s-2 ply.....	71 @
No. 432s-2 ply.....	72 @
No. 440s-2 ply.....	73 @
No. 448s-2 ply.....	74 @
No. 456s-2 ply.....	75 @
No. 464s-2 ply.....	76 @
No. 472s-2 ply.....	77 @
No. 480s-2 ply.....	78 @
No. 488s-2 ply.....	79 @
No. 496s-2 ply.....	80 @
No. 504s-2 ply.....	81 @
No. 512s-2 ply.....	82 @
No. 520s-2 ply.....	83 @
No. 528s-2 ply.....	84 @
No. 536s-2 ply.....	85 @
No. 544s-2 ply.....	86 @
No. 552s-2 ply.....	87 @
No. 560s-2 ply.....	88 @
No. 568s-2 ply.....	89 @
No. 576s-2 ply.....	90 @
No. 584s-2 ply.....	91 @
No. 592s-2 ply.....	92 @
No. 600s-2 ply.....	93 @
No. 608s-2 ply.....	94 @
No. 616s-2 ply.....	95 @
No. 624s-2 ply.....	96 @
No. 632s-2 ply.....	97 @
No. 640s-2 ply.....	98 @
No. 648s-2 ply.....	99 @
No. 656s-2 ply.....	100 @

On account of condition of cotton market all prices are nominal.

Cottonseed-Oil Notes.

The Taylor Cotton Oil Mill Co. of Taylor, Texas, has increased its capital stock from \$20,000 to \$100,000.

The Ballinger Cotton Oil Co. of Ballinger, Texas, has been incorporated, with a capital stock of \$75,000, by G. M. Vaughan, W. J. Miller and J. W. Pearce.

The Oxford Oil Mill Co. of Oxford, Miss., recently incorporated with a capital of \$45,000, and privilege of increasing to \$60,000, will build a two-press 40-ton mill, and will open bids May 15 for erection of buildings.

The Sardis Oil Mill Co. of Sardis, Miss., recently incorporated with a capital stock of \$40,000, has as incorporators J. H. Proudfoot, A. W. Shands, I. B. Booth and others. The company will manufacture cottonseed oil and fertilizers.

A cotton-oil company has been incorporated at Waxhaw, N. C., for the erection

of a 20-ton cottonseed-oil mill and ginnery. The officers of the company are J. L. Rodman, president; J. M. Niven, secretary-treasurer; H. W. Brown, general manager.

The Texas Cottonseed Product Manufacturing Co. of Austin, Texas, has been chartered, with a capital stock of \$50,000. The incorporators are George B. Zimpleman, W. H. Thayton and V. L. Brooks. The company will manufacture cottonseed products.

Mr. R. H. Schumaker, president of the Oil-Mill Superintendents' Association of Texas, has announced that the tenth annual session of the association will be held at Sherman on May 27, 28 and 29, 1903. An interesting program has been arranged.

E. Van Winkle, N. T. Pratt, M. R. Wilkinson and E. P. McBurney of Atlanta, Ga., have incorporated the Gulfport Cotton Oil, Fertilizer & Manufacturing Co. of Gulfport, Miss. The capital stock is \$250,000, and privilege of increasing it to \$500,000.

A meeting of the directors of the Cameron Oil Mill at Cameron, S. C., was held last week, and the following officers elected: Mr. D. O. Herbert, president; F. I. Culler, vice-president; H. A. Rast, secretary and treasurer, and J. H. Haigler, general manager.

The Transatlantic Trading Co. of Galveston, Texas, reports the shipments of cottonseed meal from that port for the month of April at 7945 tons, and of cottonseed cake 240 tons. The shipments from New Orleans for April were 9450 tons of meal and 1955 tons of cake.

A meeting was held last week at Davisboro, Ga., for the purpose of organizing a company to build a cottonseed-oil mill at that place. O. H. P. Bean was elected president; T. L. Brown, vice-president; J. H. Holcombe, secretary; Mars. S. Potter, treasurer; Dr. W. A. Thomas, S. J. Taylor, W. J. Henderson, C. A. Hattaway and S. Newson, directors. The amount of stock necessary to build and equip the mill can be easily secured, and it is expected to have the plant in full operation by October 15.

The following are official quotations on cottonseed and cottonseed products as posted at the Cotton Exchange in New Orleans on the 11th inst.: Prime refined oil in barrels, 42 1/2 cents per gallon; off refined in barrels, 37 cents per gallon; prime crude, loose, 36 cents per gallon; prime cottonseed cake, \$24.50 per ton of 2240 pounds; off prime cottonseed cake, nominal; prime cottonseed meal, \$24.75 per ton of 2240 pounds; off prime cottonseed meal, nominal; soap stock, \$1.12 1/2; linters, per pound, choice, 4 1/2 cents; A, 4 1/2 cents; B, 3 1/2 cents; C, 3 1/2 cents; cottonseed in sacks delivered at New Orleans, per ton of 2000 pounds, \$14; in bulk delivered at New Orleans, per ton of 2000 pounds, \$13.

Quotations on May 9 at the New Orleans Maritime and Merchants' Exchange, Limited (April shipment from the mills), were as follows: Prime cake, \$24 per long ton, ship's side; off cake, \$22 to \$23 per long ton, ship's side, according to quality; prime meal, \$25.25 per long ton, ship's side; off meal, \$21 to \$23.50 per long ton, ship's side, according to quality; prime refined oil, 39 1/2 cents nominal per gallon loose in barrels, ship's side; off refined oil, 35 1/2 to 36 cents per gallon loose in barrels, ship's side; soap stock, \$1.17 1/2 per 100 pounds, basis 50 per cent. fatty acid; linters, per pound, f. o. b. mills flat—A, 3 1/2 cents; B, 3 cents; C, 2 1/2 cents; low linters, 1 1/2 to 2 cents per pound f. o. b. mill flat, according to quality.

PHOSPHATES.

Phosphate Markets.

Office Manufacturers' Record, Baltimore, Md., May 13.

The movement in phosphate rock in the local market has been confined to sales of small lots, and during the past week the market has maintained a steady tone as to values for all descriptions of rock. Receipts so far during the present month are more liberal, and from charters reported they will likely continue so during the next sixty days. The movement at points of production still shows considerable development, both among old plants and in the working of new deposits. In Florida the outward movement is much improved, and shipments of both hard rock and pebble are much heavier, large cargoes going now to Northern European ports. Shipments from Port Tampa so far this month have been good, and for the month of April 37,864 tons went out to domestic and foreign ports. This amount, with 63,594 tons previously reported, makes a total for four months ending April 30 of 101,458 tons. From other Florida ports the same improvement in exports is reported. With regard to prices for land pebble, the market continues to show a firm attitude, and prominent companies have numerous inquiries, but entertain no bids except at outside figures. The South Carolina market for rock is now nominally steady, with considerable inquiry from both domestic and foreign sources. The movement in the Tennessee field is now, under more settled weather, very active in all mining sections. At Mt. Pleasant the industry is in much better shape than for some time past. The demand for both export and domestic rock continues, and the various companies operating are obtaining better results as to output, while shipments are made with greater dispatch than formerly. Reports from other sections in the Tennessee phosphate belt are all more or less encouraging. The general market for both domestic and export rock is very steady at \$2.75 for 70 to 75 per cent. rock, \$3.25 for 75 per cent., and \$3.75 for 78 per cent.

Fertilizer Ingredients.

The market for ammoniates is slightly easier for some descriptions, but the tone at the close was steady. The market is fairly active, with a good inquiry from the usual sources at this period of the season.

The following table represents the prices current at this date:

Sulph. of ammonia (gas), spot.....	\$3 67 1/2 @ 3 10
do. foreign prompt.....	3 25 @ 3 27 1/2
Nitrate of soda, spot Balto.....	2 15 @ 2 20
Blood.....	2 55 @ 2 57 1/2
Azotine (beef).....	2 57 1/2 @ 2 60
Azotine (pork).....	2 57 1/2 @ 2 60
Tankage (concentrated).....	2 45 @ 2 47 1/2
Tankage (dry).....	2 60 @ 2 62 1/2
Tankage (dry).....	2 50 @ 2 51 1/2
Fish (dry).....	32 50 @ 35 00

Phosphate and Fertilizer Notes.

The price of the Ford & Hiller mines, bought last week by the Dutton Company, was \$30,000, instead of \$25,000.

The steamship S. T. Morgan cleared last week from Charleston, S. C., with a cargo of 2000 tons of phosphate rock for Baltimore, Md.

It is reported that Buttgenbach & Co. of Dunnellon, Fla., have bought the mines of the Dunnellon Phosphate Co. in Marion and Citrus counties.

The Dixie Drug Co. of Brunswick, Ga., has been incorporated, with a capital of \$100,000, for the manufacture of drugs, etc. The incorporators are F. D. Aiken, Albert Fending, J. B. Wright and others.

The Westport Chemical Co. of Mobile, Ala., has been incorporated, with a capital stock of \$50,000, to operate chemical works, refinery, etc. T. A. Dungan is president of the company; Wm. D. Gates,

vice-president; H. B. Prosser, secretary, and W. P. Gales, treasurer.

The shipments of phosphate from the port of Fernandina for April were reported in the issue of the Manufacturers' Record of May 7 at 31,900 tons, the precise figures for that month being 18,900 tons.

The shipments of phosphate rock from Port Tampa, Fla., for the month of April amounted to 37,864 tons; amount previously reported 63,594 tons, making a grand total of 101,458 tons from January 1 to April 30, 1903, inclusive.

The contract has been let for the rebuilding of the plant of the Birmingham Fertilizer Co. at East Birmingham, Ala., recently burned. The buildings will be very much larger than those burned, and, exclusive of the new machinery, will cost \$25,000. The plant is to be completed by September 1.

Messrs. J. M. Lang & Co. report the shipments of high-grade Florida phosphate rock from the port of Savannah, Ga., for the month of April as aggregating 20,043 tons, distributed as follows: Stettin, 3503 tons; Hamburg, 3150 tons; Venice, 1100 tons; Antwerp, 1957 tons; Bremen, 6329 tons, and Rotterdam, 3904 tons. Shipments previously reported amounted to 38,843 tons, making a grand total for the four months ending April 30 of 58,886 tons.

It is reported that Mr. Albertus Vogt, one of the original discoverers of phosphate rock in Florida, has recently discovered extensive deposits in Pasco county on the line of railroad which Mr. J. J. McDonough of Savannah is building from Brooksville to Hudson, on the Gulf coast. The rock is said to be rich in analysis, resulting in 78.96 per cent. bone phosphate of lime, and is all near the surface, while the nature of the deposits makes it easy to mine.

It is stated that Wiley, Harker & Co. of New York, with branch offices in Petersburg and Norfolk, and the Camp Manufacturing Co. of Franklin, Va., have consolidated, and the new company will be known as the Wiley, Harker & Camp Company. This company will handle upwards of 200,000,000 feet of lumber per annum, with headquarters in New York and branch offices at Boston, Mass.; Philadelphia, Pa.; Baltimore, Md.; Pittsburgh, Pa.; Norfolk, Va., and Petersburg, Va. The following are the officers of the company: E. M. Wiley, president; R. J. Camp, vice-president; John Harker, treasurer, and Charles T. Stran, secretary. Mr. A. B. Morgan of Petersburg, Va., is manager of the Norfolk and Petersburg offices of the company.

The Manufacturers' Association of Oklahoma City, Okla., has issued a pamphlet devoted to the development of the city and of Oklahoma and Indian Territory. The pamphlet sets forth very clearly the industries already in successful operation in the city, and urges readers knowing of any manufacturing concern looking for a location to notify Mr. S. E. Bowers, secretary of the Manufacturers' Association.

It is stated that Mr. L. M. Moragues, president of the American Mahogany Co., and resident consul for the Republic of Nicaragua at Mobile, Ala., has just closed a deal whereby his company gets 560,000 acres of fine mahogany land on the north coast of Cuba. Most of the timber will be shipped through the port of Mobile to Cincinnati, Ohio, where it is used in the manufacture of furniture.

Standard Pole & Tie Co., 44 Broad street, New York, is in the market for a carload of shingles—immediate delivery.

LUMBER.

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

LUMBER MARKET REVIEWS.**Baltimore.**

Office Manufacturers' Record,
Baltimore, Md., May 13.

The tone of trade in the local lumber market continues fairly active, with considerable lumber moving during the past week. The demand is steady, but from local dealers the inquiry in some cases is better than usual. Building operations have been seriously restricted by the carpenters' strike, and considerable work is suspended on that account. From out-of-town dealers there is a good inquiry, and from points beyond the State the demand is improving. Among the various woods on the market, North Carolina pine is still prominent and firmer in tone, with receipts moderate, and the outlook for an increase in business during the summer months very encouraging. Cypress is steady, with a fair demand. White pine is quiet and steady, with a moderate inquiry. There is still a brisk demand for poplar, with prices firm and well maintained. Mills at all points have orders ahead, and the output is taken as soon as it leaves the saw. In all hardwoods there is a good demand, and prices very steady, while all the mills find buyers for stock as soon as it is turned out. Dry lumber in some cases is difficult to get readily, and for this class of lumber in oak, ash, chestnut and walnut prices are very strong. The foreign trade in hardwoods is still quiet, with no important change in the situation.

Charleston.

[From our own Correspondent.]
Charleston, S. C., May 11.

The volume of business reported so far this month in the various departments of the lumber industry at this port and outlying sections is somewhat above the average for this season of the year. The lumber trade of this port has shown during the past year a remarkable improvement, both in the demand and shipments, domestic and foreign. The improvements in the harbor, as reported by those in charge of the government work at Charleston, has been the means of attracting much trade to the port. A survey of the harbor just completed shows a minimum depth of water in the channel of 26.2 at mean low water, or 31.4 at mean high water. The work on the harbor has been entirely successful, and the deepening of the channel is steady and continuous. During the past week the shipments of lumber were light, amounting only to 548,000 feet. The movement at Georgetown is most decided, the city being full of lumber buyers and commission men from the North buying their spring stock of lumber. The mills are all running steadily, with a good demand for the entire output. The market for both yellow pine and cypress is generally very steady, and prices well maintained. The four-masted schooner City of Georgetown arrived last week at Georgetown to load a cargo of crossties for the Boston market. The Santee River Cypress Lumber Co., whose mills are at Ferguson, has recently acquired a lot of timber property in Richland county, South Carolina, the transfer of which was made last week. The company will build tram-roads into its new property in order to get the logs to the river, whence they will be rafted to Ferguson. The extensive plant of the Bridgers-McKeithan Lumber Co. at Lumber, S. C., has been sold to Mr. Ernest Williams of Lynchburg, Va., and a Mr. Barr of Norfolk, who will continue

the business under the old firm name. The financial consideration has not been made public, but it is understood a very handsome sum was paid for the property. The plant is thoroughly modern and well equipped. Mr. McKeithan, a part owner of the mill before it changed hands, will be general manager and vice-president. Mr. Williams of Lynchburg is the president of the company.

Savannah.

[From our own Correspondent.]
Savannah, Ga., May 11.

The outward movement in lumber still continues, and both in the domestic and foreign trade the demand shows very little falling off. The foreign business so far this year has shown remarkable improvement, and shipments to the United Kingdom and Continent are increasing steadily. Local dealers are very active in inviting business, and it is stated that to a limited extent they are in some cases making concessions in order to effect sales. Prominent companies, however, are still firm in their views as to prices, and will hold their lumber rather than deviate from list figures. The local market on Saturday closed firm, when the following prices were current: Sawm ties, \$10.50 to \$11 per 1000 feet; hewn ties (7x 9x8 1/2), 40 cents each; hewn ties (6x8), 26 cents; switch ties, \$11.50; minimum easy-sized yard stock, \$12 to \$14; car sills, \$14 to \$16; ship stock, \$22. The shipments of lumber during the week ending May 8 aggregated 4,294,609 feet, of which 2,293,067 feet were by steamer and 2,001,542 feet by sail vessels. In naval stores the market has shown more strength, especially in spirits turpentine, which has ruled firm during the week, closing on Friday at 45 cents. Rosins have ruled firm in tone, with some sales for export. The lower grades of rosin are slightly easier at the close. The steamer Undaunted, which cleared about ten days ago for Liverpool, carried the following cargo: 127 wooden billets, 4366 oak staves, 51 logs of pitch-pine timber measuring 6301 feet, 3712 logs of sawn timber measuring 894,185 feet, and 839 pieces of pitch-pine lumber measuring 47,323 feet. The market for naval stores closed firmer on Saturday, with spirits turpentine at 46 cents. This was partly due to the demand from domestic sources, and the fact that rainy weather is likely to decrease the output for the next few days.

Pensacola.

[From our own Correspondent.]
Pensacola, Fla., May 11.

The month of April developed an unusual volume of business in the lumber and timber trade of this port, the total exports being 32,060,000 feet, of which 11,670,000 feet was lumber, 20,391,000 sawn timber and 61,000 feet miscellaneous. During this month business in all the avenues of the lumber and timber trade of the port continues to show much activity. A large number of steamers and sailing vessels have arrived during the past ten days, and both in the demand for timber and the outward movement the situation is very encouraging and prices much firmer in tone. It is expected that the timber market will continue firm in tone for some weeks to come, as a number of charters have been closed recently. The demand for lumber is very steady, and at all nearby milling sections business is much better than last month. Prices of lumber continue steady, and shipments during the present month are expected to be quite liberal. The deal for the sale of the two saw-mills of Simpson & Co. at Bagdad to Stearnes, Culver & Co. of Ludington, Mich., has at last been closed, and the new company is now in control.

The papers in the deal were transferred last week. The mills will start up as soon as they are thoroughly overhauled, which will require several weeks, as the plant has been idle for about one year. The mills have an annual output of 35,000,000 feet, and the new owners intend running them on full time. One of the largest shipments of timber to be made to South Africa will go out this week on the steamer Anglo-Saxon, which carries a cargo of 1,500,000 feet. The Hagerman-Lazier Trading Co. is furnishing the cargo, which has been contracted for with several mills. This shipment, it is said, is only one of many which will follow. The British steamer Queen Adelaide, 1835 tons, was chartered last week to load at a Gulf port for Bremen with timber at \$1/3, June. The Warren Fitch Company will soon begin the construction here of a marine railway capable of hauling out vessels of heavy tonnage. The railway will be located between Barcelona and Baylen streets, west of the company's wharf, and an ordinance granting the company a franchise and rights to construct it has been introduced in the city council.

Brunswick.

[From our own Correspondent.]
Brunswick, Ga., May 11.

The movement of various lumber stocks for past week was brisk, the number of vessels in port being very large. This is the season of the year when the coastwise schooner depends entirely upon lumber from the Southern ports for cargoes, and on account of such an abundance of charters and favorable seasons of weather at sea the freight rate declines steadily until it reaches \$4.25, the present rate being on a basis of \$5.50. The lumber movement promises to be equally pronounced as the crosstie movement has been for past several months. The amount of stocks of all kinds on hand is larger than ever, which also indicates a rapid outward forwarding. At Fernandina the April movement amounted to 12,654,210 superficial feet; out of this, 8,454,210 feet of lumber and 2,002,000 superficial feet of railroad crossties (or 45,500 pieces), a total of 10,456,210 feet, went coastwise. The foreign shipments consisted of 2,199,800 feet. During the past week the foreign exports from Brunswick were Spain \$65,000 and Cuba 351,000 feet.

Lumber Notes.

G. W. Hinshaw of Winston, N. C., has purchased, probably for development, 4000 acres of timber land near Wilkesboro.

B. E. Coghill and associates of Boynton, Va., have purchased and will operate saw-mill and timber lands of T. & F. B. Roberts.

It is stated that Messrs. Pomeroy Bros. & Co. of Hagerstown, Md., will rebuild their rim and spoke factory burned at a loss of \$20,000.

R. M. Smith of Parkersburg, W. Va., has purchased the Excelsior Lumber Co.'s property near Elkins, and will operate the milling plant.

The Licking Coal & Lumber Co. of Ashland, Ky., has purchased about 6000 acres of coal and timber lands in Morgan county, and will begin developments at once.

The Southern Development Co., 920-21 Colonial Building, Boston, Mass., is arranging to establish a plant at Lakeview, N. C., for the manufacture of cypress and juniper shingles.

The Blue Ridge Lumber Co. of Greensboro, N. C., has completed organization with C. E. Holton, president. The company has a capital of \$20,000, and has begun the erection of a saw-mill plant.

The Atlantic Shook & Lumber Co. of Norfolk, Va., started up its plant last week in order to experiment with the machinery. There is considerable work to be done yet before the plant is complete and ready for operation.

The Lansing Wheelbarrow Co. of Lansing, Mich., will build a branch wheelbarrow factory at Memphis, Tenn. About 12,800 acres of timber land in Arkansas near Memphis will be developed in connection with the factory.

The large saw-mill of the Alison Lumber Co. of Fitzgerald, Ga., including the dry-kiln and considerable lumber, was destroyed by fire last week. Five cars loaded with lumber were also destroyed. The planing mill was not destroyed.

The Central Manufacturing Co. of Burlington, N. C., has purchased 15,000,000 feet of pine timber and will shortly install two or more saw-mills, in addition to one already in operation. The contract for the output of these mills has not yet been made.

The shipments of lumber and timber from the port of Pensacola for the month of April were unusually heavy. The total shipments amounted to 32,060,000 feet, of which 11,670,000 feet was lumber and 20,391,000 feet timber, besides 60,000 miscellaneous.

The Jackson-Weatherby Manufacturing Co. of Beaumont, Texas, has been incorporated, with a capital of \$25,000. The incorporators are George L. Jackson, E. D. Weatherby, Byron Barnes and others. The company will manufacture builders' material.

The following clearances were reported last week from Jacksonville, Fla.: Schooner Julia S. Deering for Annapolis, Md., with 1,365,000 feet of yellow-pine lumber; schooner Fairfield for San Juan, Porto Rico, with 460,000 feet, and a vessel for New York with 435,000 feet.

The Farrell-Miles Lumber Co. has been incorporated, with a capital of \$150,000, all of which has been paid in. The chief place of business is Merrouge, La., but the company also cuts timber in Arkansas. The corporators are W. E. Farrell, Richard Miles and C. M. Farrell.

It is stated that the extensive plant of the Bridgers-McKeithan Lumber Co. at Lumber, S. C., has been sold to Mr. Ernest Williams of Lynchburg, Va., and Mr. Barr of Norfolk, who will continue the business under the old name. Mr. Ernest Williams is now president of the company.

It is stated that President F. Sitterling of the Virginia Passenger & Power Co. of Richmond, Va., has closed contracts for over 25,000,000 feet of lumber in Amelia county, Virginia. His contracts include oak, pine, hickory, walnut and maple woods. He will establish, it is said, three or four saw-mills near Amelia Court House.

The Santee River Cypress Lumber Co. has recently acquired a large lot of timber property in Richlands county, South Carolina, the transfer of which was made last week at Columbia. The company will build tramroads to its new property in order to get logs to the river, from which point they will be rafted to the company's mills at Ferguson.

The Richard P. Baer Lumber Co., a new concern in the Mobile market, is now erecting a large hardwood saw-mill near Mobile. The new plant will be modern in every respect, fitted with Prescott hand saws and other machinery of the same manufacture. The mill is for the cutting of hardwoods entirely, cutting principally quarter-sawed oak, ash, gum and cypress. The mill will have a daily capacity of 40,000 feet.

MECHANICAL.

Chain and Pick Coal-Cutting Machines.

By H. S. JOHNSON of Charleston, W. Va.

When machine coal mining was first contemplated the inventor's idea in designing a machine was to imitate as nearly as possible the operation of the pick miner; consequently, the pick or puncher machine, as it is commonly

known, was the first type of mining machines tried. The failings of this form of machine soon became apparent, and England and America were flooded with applications for patents on coal-mining machines, which, it was expected, would do the work more successfully. The final and successful result of this vast volume of inventions and patents has been the development of the present coal-cutter, commonly known as the chain breast machine, the air type of which is shown by Fig. 1. The pick or puncher machine had, however, been improved until it now does very satisfactory work under certain conditions.

The purpose of both types of machine is to undercut the coal so that it can be shot down ready for loading into mine cars, but the method of operation of the two types is entirely different.

In operating a pick machine the runner sits on a board or platform inclined to the face of the coal; one foot of operator is braced against one wheel of the machine, and with the two handles he directs it against the coal, picking off the coal exactly as the miner would do, except with much more force to each blow. The undercut made is V-shaped, twelve to eighteen inches in height at the face, and tapering back to a feather edge on the floor at the rear of the cut, the depth of the cut being three to six feet, according to the thickness of the coal. A helper shovels away the cuttings as the machine, guided by its operator, loosens the coal in the kerf.

The chain or breast machine is placed in position ready for the first cut at the extreme left of the room, the outer frame being held firmly in position by jacks extending to roof. The runner then throws on his power and the machine makes an undercut forty-four inches wide, five to seven feet deep (dependent upon thickness of vein) and four inches high in from three to four minutes. At the end of the cut the machine automatically is thrown out of gear and is reversed so that the sliding frame comes back to its original position. (See Fig. 2, which shows an electric chain cutting machine.) The machine is barred across the face of the coal the width of the cutterhead, and the operation repeated until the entire room is undercut. A helper shovels away the cuttings as they are brought out by the cutting chain.

The pick machine can be driven only by compressed air, a successful electric puncher having never been put on the market, whereas the chain machine can be operated either by compressed air or electricity.

Fourth—Maintenance.—The cost of maintaining a compressed-air pipe line is at least three times as great as an electric line. The acid water of mines is very severe on pipes, and after having once been put into a mine they can rarely ever be used again, and much loss and expense is incurred in maintaining pipe lines from leakage. On the contrary, with the copper circuits of the electric system there is scarcely any deterioration, and the wires can be readily re-

which fact in itself is sufficient argument against the compressed-air system for haulage. It has been found almost impossible to install a compressed-air locomotive except in the very thick seams of coal, and where the curves have a large radius, owing to the great space required for storage tank on the locomotive.

The only objection which has ever been raised against electricity for mine use is the mistaken idea of danger of coming in contact with the wires. There have

The disadvantages of compressed air in a mine are:

First—Increased initial cost of installation as compared with electric equipment, it being about one-third greater for a small compressed-air plant with the machines at no great distance from the compressor and the proportion increasing very rapidly as the distance from power-house increases.

Second—Inefficiency.—An electric plant can be installed with a guaranteed efficiency of 75 per cent. from the generator

moved and placed elsewhere in the mine when any portion of mine may have been worked out, even after such wires have been in use for years.

In all modernly-equipped mines of the present day some method of mechanical haulage is being used, and in this respect electricity shows another decided advantage.

It is not the intention of this article to bring up the question of the comparative merits of compressed air and electric haulage except as it applies to the merits

been some accidents in mines operated by electricity, but they are extremely rare, and the likelihood of danger to the average man from this cause might be compared to the chance of his being struck by lightning. Whenever an accident occurs of this nature the whole world hears of it. In the Kanawha and New River district of West Virginia, for example, there are at the present time about fifty mines equipped throughout with electricity, and there is yet to be the first accident recorded which can be traced to any



FIG. 1—AIR CHAIN MINING MACHINE MANUFACTURED BY THE JEFFREY MFG. CO., COLUMBUS, OHIO.

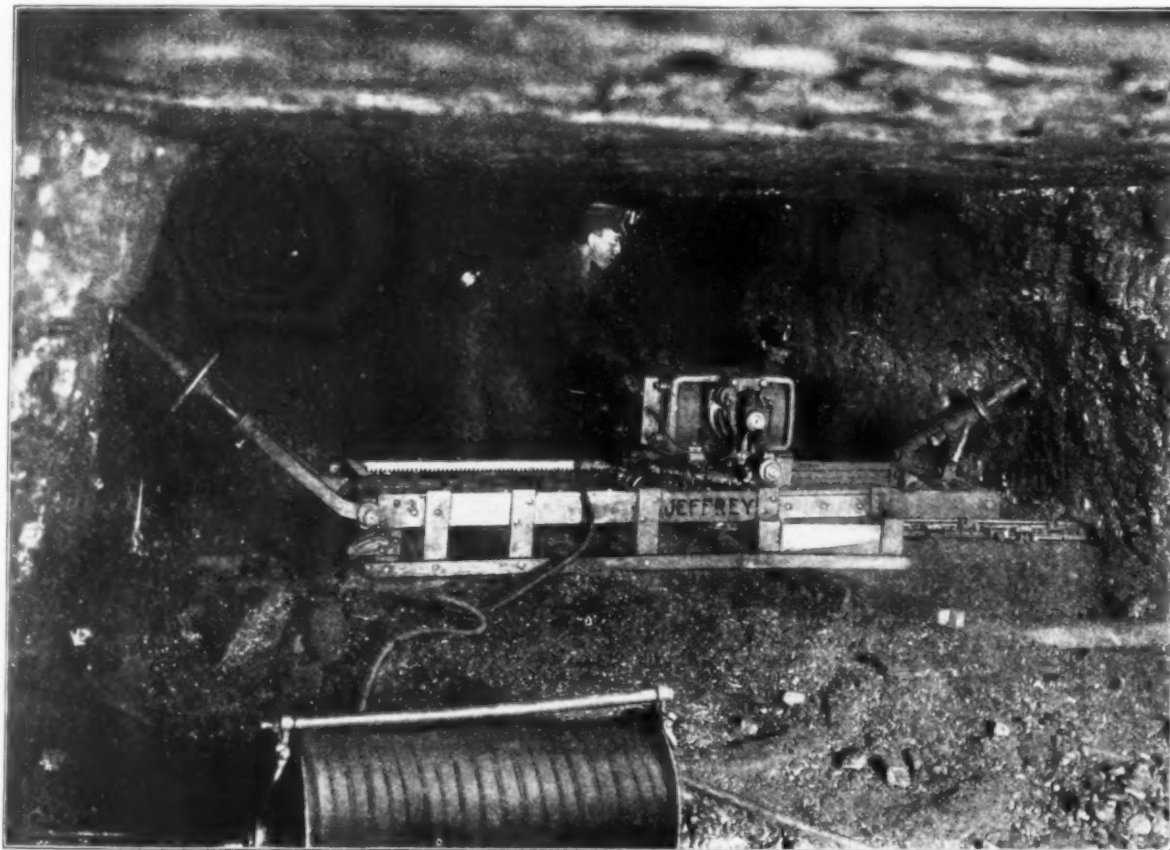


FIG. 2—VIEW OF JEFFREY ELECTRIC CHAIN MINING MACHINE WITH CUTTER FRAME PARTIALLY EXTENDED UNDER COAL.

to the mining machine, while about 30 per cent. would be an extremely high efficiency for an air-mining plant, no re-heaters being used.

Third—Lack of Flexibility.—An extension of an electric feeder line may be made in a very few minutes by the machine runner himself if necessary, while the laying of additional pipe for compressed air for the necessary extensions is, under most favorable conditions, quite an undertaking.

of compressed air and electric systems. No operator in equipping his mine cares to be compelled to install both compressed air and electric power, but if he installs the pick or puncher machines he must necessarily have compressed air for such machines, whereas if he has the chain machines he is just as sure to install electricity.

In this country not one compressed-air locomotive has been installed for mine haulage to twenty electric locomotives,

contact with the electric wires. Records show that there have been perhaps more accidents in mines where compressed-air equipments have been installed than in electric equipments, such accidents resulting from suffocation incident to combustion on account of the accumulation of grease and soot in the pipes. At the recent meeting of the American Institute of Mining Engineers in Albany a number of serious accidents and casualties were reported in mines and tunnels due to this cause.

The advocates of compressed air claim that the air liberated from the compressed-air engines in a mine assists in ventilation. This is so, but the assistance is so slight that no one has been able to notice it. Has there ever been a coal operator who, in buying his ventilating fan, considered that he might use a smaller fan because he had the compressed-air system installed in his mine?

The initial cost of a chain machine is from three to four times greater than that of a pick machine. On the other hand, it requires the same number of men to operate each type of machine—a runner and a helper—and the pick machine will undercut only about 40 per cent. as much coal as the chain machine. This fact has been recognized by the differential in the miners' scale of wages against the pick machine. A coal-trade paper in one of its recent issues showed a comparison between the amount paid for pick-machine and chain-machine mining. We quote from this article:

"Machine mining—punching machine, R. O. M. basis, was thirty-nine cents; will be forty-five cents per ton.

"Machine mining—chain machine, R. O. M. basis, was thirty-six and one-half cents; will be forty-two and one-half cents."

This shows the differential against the pick-machine mining of two and one-half cents per ton R. O. M. basis. In the face of the differential shown above, machine runners can always be more readily secured to operate the chain type of machine than the puncher on account of their ability to make much more money with much easier work.

The lump coal is the coal on which the operator now makes the most money, and consequently a machine which gives him the greater percentage of lump is the desirable machine for him to use. The pick machine making the same kind of an undercut that the miner does with hand pick gives very little more lump coal than the miner himself, whereas the chain machine increases the proportion of lump from 10 to 30 per cent., dependent upon the character of the coal.

It is very much harder on a runner to operate a pick machine than a chain machine, as he is continually jarred by the action of the machine. The chain-machine runner need not touch his machine after starting it until the cut is completed. It has been found much more difficult to educate a man in the proper handling of the pick machine than to operate a chain machine. With the pick machine a great deal of the result depends on the skill of the miner in directing the blows of the pick, while the chain machine, after once being set into position, does its work independent of any direction from the runner.

That there is a certain field for the pick machine, of course, cannot be contested, otherwise manufacturers of pick machines would soon cease building them. Where the coal is very thick and of a soft, spongy nature the pick machine does excellent work. It can undercut rapidly under these conditions, and the V-shaped cut is well adapted to let the coal come down, whereas in a mine having coal of this character there is danger of its settling down into the four-inch kerf made by the chain machine, and not rolling over when shot. In order to work a chain machine to the best advantage it is necessary to have a fairly good top, so that posts can be set ten to twelve feet from the face; but should the roof require posts set very close to face, a pick machine can be used, unless such posts are required very frequently along face.

One claim made by the advocates of the pick machine is that it can be used

in all parts of every mine, so that it is not necessary to have any pick miners. In all mines where chain machines can be used to advantage, which covers practically eight out of every ten mines, the chain machine can be used in every part of the mining save in the drawing of pillars.

The objection raised to having any pick miners in the mine is that it demoralizes the general workings of the mine to have two systems and two rates of pay. Drawing pillars, in the first place, is a very small part of mining, and is usually done by old and experienced miners, who consider it an "easy snap," as coal on the squeeze is always easy to mine; therefore this claim need hardly be considered.

In a recent article on coal-mining machinery the statement was made that in 1890 there were 1897 pick machines in use in the United States and 1128 chain machines. This was due to the fact that the chain machines had been in use a comparatively short time as compared with the pick machines. At the present time the number of chain machines used in the great coal-producing States far exceeds the number of pick machines.

A recent report of the chief mine in-

tanks in the basement of the wrecked building. In cotton mills, therefore, there is danger of this character. The storage-battery locomotive herewith illustrated has been designed with special reference to the economical handling of material in large establishments. Its simple and rugged construction reduces the expense for maintenance to a minimum—probably less than the cost of shoeing the horses which it replaces. The operating expenses consist of the cost of power required to charge the batteries and the pay of one man. Even if charging current is supplied from an independent generator it is cheaper than other methods of handling cars, as there is no waste of energy when the machine is not in operation.

This locomotive is built for standard gauge, fitted with M. C. B. standard couplings, making it suitable for use with ordinary railroad cars and track. The length over bumpers is 21 feet 4 inches, and height from railhead to top of cab is 12 feet 1 inch. The wheel base is 7 feet 6 inches, and permits operating the locomotive over a comparatively smaller turntable. It weighs about twenty tons, and runs at a speed of from two to four miles per hour on level track.

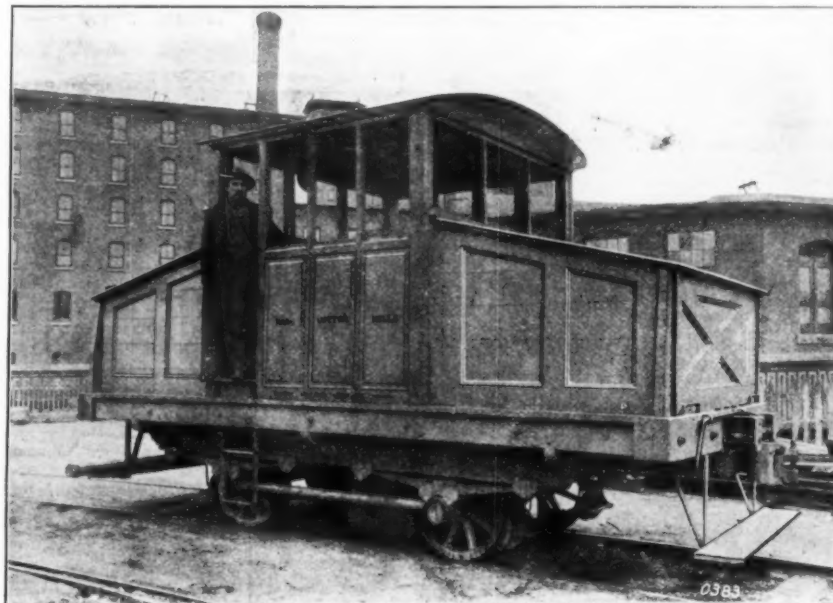
The locomotive is "double-ended," cab

without wasting any of the energy of the battery by raising it through a resistance.

The controller is of the standard vehicle type, and has two levers which control every desired motion. The reversing lever is set to point in the direction in which the locomotive is to move, and the second lever controls speed. These levers are mechanically interlocked, so that the motors can only be reversed when the speed lever is in the off position. The locomotive may be run with the controller in any notch, there being no transition point on which a careless operator might leave his lever and burn out the apparatus.

All the gears are machine cut, run in an oil bath, in fully enclosed gear cases of the C. W. Hunt Company's standard type. The same company's regular flexible and insulated coupling is used for connecting the motor to the gear case. There is a separate gear case for each motor. It will be seen that the driving gear consists of two parts, which are exact duplicates of each other. In an emergency one motor could be cut out entirely and the locomotive operated by the remaining motor, but with a reduction of hauling capacity.

The speed reduction of the gear case is so proportioned to the safe discharge rate of the batteries, the safe capacity of mo-



A 20-TON ELECTRIC STORAGE-BATTERY LOCOMOTIVE.

spector of Ohio says: "But while the machines depending upon electricity for power are becoming more popular and are more generally used, those operated by compressed air are becoming fewer. In 1899 the compressed-air machines numbered forty-four; in 1898, fifty-eight; in 1897, sixty-seven; in 1896, seventy-nine; in 1895, eighty-six, and in 1894, 112."

The Electric Locomotive.

Many manufacturing establishments use railroad cars for handling material and finished product in and around their plants. In some instances teams of horses and in others steam locomotives are used for switching the cars. It is frequently the case that steam or trolley locomotives are highly dangerous on account of the fire risk, and especially where a manufacturer's materials or finished product are of an inflammable character. The disastrous consequences which can result from a steam locomotive used near inflammable material were illustrated by a recent explosion at an oil plant in Minneapolis, when eight men and two women lost their lives. This explosion is believed to have been caused by the sparks from the switch engine, which ignited some oil while it was being transferred from the tank car to the

located directly in center, making a very desirable arrangement for switching, which calls for operation in both directions with equal facility. The batteries are contained in the sloping compartments at either end. This symmetrical disposition distributes the weight evenly, and each wheel being a driver, the entire weight of the locomotive is usefully employed in traction. The wheels and axles are driven from the gear cases in the cab by means of Renold silent chains suitably enclosed. These chains are the only portions of the driving gear situated below the car body, the motors and gear cases being mounted in the cab, readily accessible and under the immediate notice of the operator. Any reasonably reliable man can, therefore, maintain the equipment in proper working condition, and this is a most important feature of the design.

The battery is furnished by the Electric Storage Battery Co., the elements being mounted in tanks of extra depth to prevent the electrolyte from splashing over the top. The battery is fully protected against injury due to shocks to which the locomotive is exposed.

By connecting the two motors, which are specially wound in series or parallel, and by varying the arrangement of the fields, an efficient speed control is obtained

tor, and to the weight of the locomotive, that neither the batteries nor the motors can be dangerously overloaded.

The driving axles are made to the M. C. B. standard dimensions, and run in "Hunt" patent roller bearings, which minimize the friction. The wheels are shrunk in places, and have chilled treads and flanges of M. C. B. standard size and shape. A powerful brake is in the cab.

In light switching service the batteries can be recharged while the locomotive is waiting between hauls. For heavier service it may be necessary to charge during the noon hour or after working hours. The battery is automatically protected during charging by well-known safety appliances, which open the circuit if the current is excessive, and also when it drops so low as to indicate that the battery is fully charged. The precise arrangement of the charging station depends largely on the details of the electric plant available, and the builder of the locomotive advises buyers as to the methods to be employed in each case.

This locomotive is placed on the market by the C. W. Hunt Company of West New Brighton, Staten Island, N. Y. Smaller locomotives intended for use on the "Hunt" narrow-gauge track have been built by the company for some years,

CONSTRUCTION DEPARTMENT.

THE MANUFACTURERS' RECORD seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with every one interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

*Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the Manufacturers' Record.

It often occurs that the organization of a new company in a town is not known by the postmaster, and hence letters addressed to the company are returned marked "not known." The Manufacturers' Record reports the first organization of all companies, and our readers, in seeking to get into communication with them, should be very careful in deciding how to address them, and it is often advisable to add the names of one or more incorporators as an aid to the postmaster in delivering mail.

ALABAMA.

Aetna-Iron Furnace, etc.—T. T. Lewis and associates of St. Louis, Mo., have leased entire property of Aetna Furnace Co., consisting of iron furnace, real estate, mineral holdings, etc., and will operate same on extensive scale.

Anniston—Gold Mines.—G. B. Flint of Baxter & Co. will probably organize stock company for development of gold-bearing properties in Randolph county.

Anniston—Hardware Company.—City Hardware Co. has been organized, with capital of \$12,000, by J. R. Landham, H. D. Barr and Ross Blackmon.

Anniston—Iron Furnace.—Woodstock Iron Co. has blown out its No. 4 furnace, and will refine and make other improvements.

Birmingham—Real Estate.—Columbia Land Co. has been incorporated, with capital of \$500, by F. F. Snedecor, S. E. Thompson and L. B. Snedecor.

Birmingham—Mercantile.—Chartered: Steele-Smith Dry Goods Co., with capital of \$30,000, by G. A. Steele and others.

Birmingham—Pipe Works.—Southern Pipe Co. will rebuild its works reported burned at loss of \$150,000.

Birmingham—Land Company.—Highland Park Company, T. M. Bradley, president, has increased capital from \$20,000 to \$34,200.

Birmingham—Development Company.—Jefferson Development Co. has been incorporated, with capital of \$50,000; and privilege of increasing to \$500,000, by Richard Randolph, N. F. Thompson and J. Carey Thompson.

Birmingham—Oil Wells.—Birmingham Consolidated Oil Exchange has been incorporated, with capital stock of \$2,000,000, to prospect for oil in Morgan and other counties of North Alabama. T. G. Jones of Montgomery, Ala.; T. R. Roulhac of Sheffield, Ala.; C. M. Shelley of Birmingham and others are among the incorporators.

Birmingham—Fertilizer Factory.—Virginia-Carolina Chemical Co., Richmond, Va., has awarded contract to J. M. Morgan of Woodlawn, Ala., for erection of building for its fertilizer factory recently reported as burned and to be rebuilt.

Bridgeport—Mining.—Alabama-Tennessee

Coal, Iron & Railroad Co. has been incorporated under New Jersey laws, with capital stock of \$2,500,000, for mining purposes, by Charles F. Schofield and James R. Hunter of Bridgeport, and Frank P. McDermott of Jersey City.

Demopolis—Cooperage.—B. L. & J. B. Garber have purchased and will operate plant of Demopolis Cooperage Co.

Ensley—Iron Works.—Linn Iron Works, owned by the Tennessee Coal, Iron & Railroad Co., will be moved from Birmingham to Ensley and greatly enlarged.

Huntsville—Foundry and Machine Shops.—Huntsville Foundry and Machine Works will build addition.

Huntsville—Brick Works.—Standard Brick Co. will be reorganized, with capital of \$30,000, and T. W. Pratt, president; W. T. Miller, vice president, and James R. Boyd, treasurer.

Mobile—Chemical Works.—Westport Chemical Co. has been incorporated, with capital of \$50,000, to operate chemical works, refinery, etc. T. A. Dungan is president; Wm. D. Gates, vice president; H. R. Prosser, secretary, and W. P. Gates, treasurer.

Mobile—Hardwood Mill.—Richard P. Baer Lumber Co. has commenced erection of its proposed hardwood mill, which will have capacity of 40,000 feet per day; main building will be 40x122 feet, equipped with two boilers and one engine.

Montevallo—Coal Mines.—Montevallo Coal Co., Wm. F. Aldrich, Birmingham, Ala., president, will reorganize and incorporate under New Jersey laws with increased capital to provide for extensive development of its property, consisting of about 4000 acres of coal lands.

North Birmingham—Water-works.—City will issue \$50,000 of bonds, \$30,000 of which will be used in construction of water-works system. Address "The Mayor."

Troy—Laundry.—J. T. Murphree of Anniston, Ala., will probably erect laundry at Troy.

ARKANSAS.

Fort Smith—Real Estate.—Tilles Real Estate Co. has been incorporated, with capital of \$50,000, and Isaac Apple, president; Louis T. Brunhild, vice-president, and C. A. Lick, secretary.

Little Rock—Elevator.—T. H. Bunch will rebuild grain elevator and warehouse recently burned.

Little Rock—Bridge.—Dalhoff Construction Co. has contract for building wooden viaduct over railroad tracks at West Third street.

Mammoth Springs—Electric-power Plant.—Salem & Eastern Railway will operate its road by electricity, generated in part by water-power from Spring river, surveys for dam and power station having been made. Address for full particulars W. K. Palmer, M. E., consulting engineer, New York Life Building, Kansas City, Mo.

Marvell—Gin.—Tate Gin Co. has been incorporated, with capital of \$7000, and L. J. McKinney, president; M. M. Tate, vice-president, and J. B. Swift, secretary.

Newport—Gas Company.—Newport Gas Co. has been incorporated, with capital of \$25,000, and Crawford West, president; Gustave Jones, vice-president, and J. L. Jones, secretary.

Paris—Light and Power Plant.—Paris Light & Power Co. has been incorporated, with capital of \$2000, and August Bartsch, president; Wm. M. Kimberly, vice-president; Ed. Bartsch, secretary-treasurer.

Pocahontas—Ice and Bottling Plant.—Pocahontas Ice & Bottling Co. has been incorporated, with capital of \$6000, and W. H. Skinner, president; H. L. Throgmorton, vice-president, and T. W. Midkiff, secretary.

Yocum—Grist Mill and Gin.—Yocum Gin & Mill Co. has been incorporated, with capital of \$4000, and L. J. High, president; A. Bird, vice-president; W. W. Bryan, secretary, and J. B. Hodges, treasurer.

FLORIDA.

Bushnell—Cannery.—R. C. Clark contemplates establishing cannery.*

Dunnellon—Phosphate Mines.—Buttgenbach & Co. of Dunnellon have purchased phosphate properties of Dunnellon Phosphate Co. in Marion and Citrus counties.

Gainesville—Electric-light Plant.—City has contracted with the Gainesville Gas & Electric Co. for lighting city, as recently reported; company will begin at once erection of one-story brick power-house 50x100 feet.

Jacksonville—Land Improvements, etc.—It is reported that Joseph R. Dunn, real-estate dealer, has sold 20,000 acres of land in Nassau county to John Halahan of Iowa, J. A. Morgan of Tennessee, and F. E. Beck of Pennsylvania, who will develop same as stock farm, expending \$100,000 on improvements, which will include barns, division fences, farming implements and complete system of water-works.

Jacksonville—Furniture.—Fetting Furniture Co. has been incorporated, with capital of \$40,000, by E. M. Fetting, T. G. Hutchins and D. H. Dolg for conducting general furniture business.

Pasco County—Phosphate Mines.—Phosphate rock has been discovered on property of J. J. McDonough of Savannah, Ga., in Pasco county, and will be developed extensively.

Pensacola—Improvements.—City will vote July 2 on issuance of \$750,000 of bonds for public improvements. Address "The Mayor."

Pensacola—Fertilizer Factory.—Currie Fertilizer Co. of Louisville, Ky., states that it has no intention of erecting fertilizer plant at Pensacola, as was lately reported.

Pensacola—Marine Railway.—Warren Fish Co. is preparing to construct and maintain marine ways in the water front of Pensacola.

Pensacola—Milling.—Charles Earl Currie Company, Charles Earl Currie of Louisville, Ky., principal stockholder, will erect plant for milling of minerals near Pensacola.

GEORGIA.

Americus—Ice Factory and Cold-storage Plant.—E. D. Ansley and others will establish ice factory and cold-storage warehouse, and later on install canning and syrup outfit, operating as the Southern Ice & Cold Storage Co.*

Atlanta—Sewer Extension.—24,300 feet of sewer extension will be made, including purification plants, at cost of \$250,000. Address "The Mayor."

Atlanta—Drug Company.—Chartered: Grand Pharmacy Co., with authorized capital of \$25,000, by C. C. Stockard and others.

Augusta—Publishing.—Chartered: Augusta Chronicle Publishing Co., with capital of \$135,000, by H. H. Cabaniss and Thomas W. Loyless.

Brunswick—Drug Company.—Dixie Drug Co. has been incorporated, with capital of \$100,000, for manufacture of drugs, etc., by F. D. Alken, Albert Fending, J. B. Wright and others.

Dalton—Sewerage.—Hotel Dalton Co. will build one mile of sewerage.*

Davidsboro—Cotton-oil Mill.—H. P. Beau, T. L. Brown, J. H. Holcombe, M. S. Potter and others are interested in the formation of company for erection of cottonseed-oil mill.

Etna—Iron-ore Mines.—It is reported that Alex. T. Hamilton and Western associates have purchased the properties of the Etna Manufacturing Co. located at Etna, and that extensive improvements are to be made.

Fitzgerald—Saw-mill.—Allison Lumber Co. will rebuild saw-mill and dry-kiln lately burned at loss of \$10,000.

Macon—Furniture Company.—W. C. Sheftall and C. V. Beall have incorporated Lowe Furniture Co., with capital of \$2000, for dealing in furniture.

Marietta—Foundry and Machine Shops.—Company reported lately as being organized for establishment of foundry and machine shops has been incorporated as the Glover Machine Works, with capital of \$75,000, by J. W. Glover, Geo. F. Newell, M. M. Sessions and others.

Rome—Gaslight Plant.—J. M. Kennedy of Cincinnati, Ohio, has purchased plant of Rome Gaslight Co., and will probably improve and operate it.

Round Oak—Gin and Grist Mill.—Round Oak Gin & Mill Co. has been incorporated and will erect grist mill and cotton gin with capacity of sixty bales of cotton per day.

Sparta—Cotton Mill.—Union Oil Co. of Union Point, Ga., states that it will not operate as a cotton mill the property reported last week as purchased. It will operate it as a cottonseed-oil mill of forty tons capacity, this being the plant reported April 30.

Tifton—Iron Works.—George T. Gifford Iron Works will be incorporated, with capital of \$10,000, by Geo. T. Gifford, G. W. Gifford, J. A. Ritchey, P. D. Phillips and others.

KENTUCKY.

Ashland—Coal and Timber Lands.—Licking Coal & Lumber Co. has purchased about 9000 acres of coal and timber lands in Morgan county, and will begin developments at once.

Beattyville—Oil and Gas Wells.—Lee County Oil & Gas Co. has been incorporated, with capital of \$150,000, by L. C. Norman, Fayette Hewitt, R. K. McClure, J. H. Beatty and T. B. Blakey.

Bowling Green—Asphalt Plant.—Wadsworth Stone & Paving Co., mentioned last week, has been developing asphalt mines near Bowling Green, and will build the asphalt plant reported last week. About \$25,000 will be the cost. James Bryan of Pittsburg, Pa., is engineer in charge; company's offices at 411 Tradesmen's Building, Pittsburg, Pa.

Georgetown—Gold and Copper Company.—Bluegrass Gold & Copper Co. has been incorporated, with capital stock of \$1,500,000, by Catesby Woodford of Paris, A. C. Cook, James P. Jackson, Georgetown; John M. Brannan, Tucson, Ariz., and others.*

Gladstone—Coal Mines.—Gladstone Coal & Coke Co. is building new tipple with capacity of 1200 tons per day, and will begin at once erection of 200 coke ovens. Company has option on 20,000 acres of mineral lands in Western Kentucky.

Glasgow—Lumber Mills.—Glasgow Lumber & Furniture Manufacturing Co. has been incorporated, with capital of \$25,000, by John Lewis, W. T. Hicks, E. T. Jewell, R. L. Paul and others.

Henderson—Coal Mines.—Green River Coal Co. has been incorporated, with capital of \$100,000, by A. A. Arnold, Gass county, Michigan; F. C. Arnold, R. G. Arnold, Spottsville, Ky., and others.

Hopkinsville—Terminals.—Tennessee Construction Co., R. E. Harwood, chief engineer, Nashville, Tenn., has acquired ten acres of land in Hopkinsville for terminals and yard use; this is about one-half of what the company expects to acquire for same purpose.

Lexington—Oil Refinery.—Southern Oil Refining Co. will erect oil refinery with capacity of 8000 barrels of oil per month.

Louisville—Elevators.—Washburn-Crosby Company of Minneapolis, Minn., reported recently to operate \$100,000 flour mill at Louisville, will, it is said, build cement and the wheat elevator with capacity of from 50,000 to 75,000 bushels at cost of \$18,000.

Louisville—Shoe Factory.—Vogel Bros. Shoe Co. has been organized for manufacture of shoes, by Albert R. Vogel and J. J. Vogel.

Louisville—Machine Works.—American Machine Co. has increased capital from \$50,000 to \$100,000, as lately reported, for enlarging business in the manufacture of elevators of all kinds.

Louisville—Phonograph Company.—The Ray Company has increased capital to \$75,000.

Louisville—Laundry.—New Kentucky Laundry has been incorporated, with capital of \$2000, by T. N. Shepard, W. C. Brohm and others.

Louisville—Land Improvement.—Directors of the Falls City Belt Line Railroad Co. have incorporated the Falls City Belt Line Land Co., with capital of \$100,000, for dealing in and improving real estate.

Louisville—Surgical Instruments.—W. T. Berry Surgical Instrument Co. has increased capital from \$7500 to \$20,000.

Louisville—Mercantile.—Chartered: Grauman-Henchey-Cross Company, with capital of \$300,000, by J. H. Grauman and others.

Louisville—Mantel Company.—A. F. Voss Mantel Co. has amended charter, changing name to Voss-Cochran Mantel Co., and increasing capital from \$14,000 to \$40,000.

Louisville—Development Company.—Union Development Co. has been incorporated, with capital of \$30,000, by E. C. Malone, J. H. Perdue and Edward Hansberry.

Marion—Mining.—Chartered: Globe Spar Co., with capital of \$100,000, by L. M. Rice of Louisville, Ky.; J. P. Halsell and C. A. Sturtevant of Fredonia and others.

Owingsville—Oil and Gas Wells.—Fidelity Oil, Gas & Improvement Co. has been incorporated, with capital of \$20,000, by Dr. Hodge of Pittsburg, Pa.; Wm. O. Fields, Toledo, Ohio; P. L. Spencer, Louisville, Ky., and others.

Paducah—Novelty Company.—Foreman

Bros. Novelty Co. has increased capital to \$20,000 from \$200.

Somerset—Telephone System.—Somerset Telephone Co. will make extensive improvements and enlargements, installing new switchboard, etc.

Sturgis—Coal Mines.—United States Coal Co. (Thos. A. Nevins of East Orange, N. J., principally interested) will develop new coal lands near Sturgis and increase output of present mines.

LOUISIANA.

Delhi—Oil Mill, etc.—John P. Parker will erect cottonseed-oil mill, ice factory and electric-light plant.

Jennings—Oil Wells.—Columbia Oil Co., previously reported incorporated, has completed organization with capital stock of \$50,000 and E. F. Rowson, president; John C. Grishelmer, vice-president, and H. K. Midkiff, secretary.

Merrimong—Lumber Company.—Farrell-Miles Lumber Co. has been incorporated, with capital of \$150,000, by W. E. Farrell, Richard Miles and C. M. Farrell, for development of timber lands.

New Orleans—Glass Factory.—G. E. Pitcher, P. O. Box 317, contemplates establishing factory for manufacture of bottles and other glass products.

New Orleans—Vehicle Factory.—Hodgins Vehicle Co., Limited, with capital of \$25,000, has been incorporated for manufacture of carriages, wagons, etc. Wm. W. Hodgins is president; Daniel Driscoll, vice-president; John Masquere, secretary-treasurer.

New Orleans—Oil Wells, Pipe Lines, Refineries, etc.—Morrill Oil & Pipe Line Co. has been incorporated, with capital of \$250,000, for developing oil wells, constructing refineries, pipe lines, etc., by Frederick P. Morrill, Bernard McCloskey, S. P. Walmsley and others.

New Orleans—Building-material Factory.—Edward Thompson, John S. Lombard, Hubert St. Amand and others have incorporated the Edward Thompson Company, Limited, with capital of \$10,000, for manufacture of building materials of all kinds.

Welsh—Oil Wells.—Louisiana Oil & Refining Co. has been incorporated, with capital of \$300,000, for developing oil wells, etc., by C. E. Smith of Port Arthur, Texas; George A. Smith, Denver, Col.; Peter E. Hellwege of New Orleans, La.

Welsh—Oil Wells.—Maquoketa Oil Co. has been incorporated, with capital of \$250,000, for developing oil wells. D. N. Loose is president; John A. Tracy, vice-president; C. R. Bell, treasurer, and D. A. Fletcher, secretary.

MARYLAND.

Baltimore—Canary.—William Nimsen & Sons will erect additional building, one story, 60x200 feet, and a new wharf, after plans by Henry Pierson & Son.

Baltimore—Coal Mines.—Chartered: Quehoning Coal Co., with capital of \$5000, by M. Harry Eaton, Geo. W. Atkinson, Thomas T. Raswell and others.

Baltimore—Railway-supply Works.—Maryland Supply Co. has been incorporated, with capital of \$100,000, for manufacture of railway supplies, by Alfred W. Gieske, Chas. A. Inglis, Albert R. Stuart and others.

Baltimore—Printers' Rollers, etc.—Bernhard Dietz Company has been incorporated for manufacturing printers' rollers and roller composition, by Bernhard Dietz, Stuart Cooper of Baltimore, Philip B. Cooper, Annapolis, Md., and others; capital \$10,000.

Baltimore—Machine Shops.—H. J. Tinsley has completed plans for machine shops of Stevenson Bros., recently reported; will be of brick and stone, equipped with elevators and other conveniences.

Baltimore—Real Estate.—Chartered: Modern Dwelling Real Estate Co., with capital of \$30,000, by Wm. H. Hammond, Armistead M. Webb, Chas. R. Woods and others.

Baltimore—Drug and Supply Company.—Chartered: Robertson Drug & Supply Co., with capital of \$5000, by Samuel H. Robertson and others.

Baltimore—Clothing Factory.—Crescent Manufacturing Co. has been incorporated, with authorized capital of \$3000, for manufacture of boys' wearing apparel, by Henry E. Heenes, James B. M. Pepper and Charles W. Waldner.

Cumberland—Brick and Tile Works.—Cumberland Granite Brick Co. has been incorporated, with capital of \$30,000, for manufacture of bricks and tiling, and will erect plant with capacity of 10,000 bricks per day. W. C. White is president; C. L. Bretz, vice-president; J. C. Schaffer, treasurer, and Henry Paupe, general manager.

Hagerstown—Woodworking Factory.—

Pomeroy Bros. & Co. will rebuild rim and spoke factory burned at loss of \$20,000.

Hagerstown—Gas Works.—Clearspring Acetylene Gas Co. has been organized, with capital of \$2000, for manufacture of illuminating gas, by Dr. A. Shank, J. P. Perry, C. L. Smith, C. C. Dennis and W. E. Loose.

Hyattsville—Lighting.—City has decided by popular vote to grant franchise to Northern Electric Lighting Co. of New York for installation of electric-light plant recently reported.

North East—Clay Works.—Maryland Brick & Tile Co. of Baltimore, Md., has purchased and will operate Maryland Clay Co.'s plant at North East.

Washington, D. C.—Sand Company.—Capital Sand Co. has been incorporated, with capital of \$50,000, by James M. Miller, Harry C. C. Stiles and John O. Johnson.

Washington, D. C.—Chartered: District of Columbia Incorporating Co., with capital of \$1000, by Herman Baumgarten, Ivan Heideman and Herbert L. Frane.

Washington, D. C.—Bakery.—William Berens & Sons have purchased controlling interest in the Charles Schneider Baking Co., and will improve and operate the plant.

MISSISSIPPI.

Greenwood—Furniture Factory.—Weems-Lockwood Furniture Co. will erect four-story brick furniture factory equipped with latest machinery, including automatic sprinklers, exhaust pipes, etc.

Gulfport—Development Company.—Gulfport Development Co. has been incorporated, with capital of \$250,000, by J. T. Jones, J. H. Jones, R. E. Powers and E. J. Bowers.

Gulfport—Cotton-oil Mill.—E. Van Winkle, N. T. Pratt, M. R. Wilkinson and E. P. McBurney of Atlanta, Ga., have incorporated the Gulfport Cotton Oil, Fertilizer & Manufacturing Co., with capital of \$250,000, and privilege of increasing to \$500,000, for operating the cottonseed-oil mill reported previously to be erected and for which the E. Van Winkle Gin & Machine Co. of Atlanta was making plans.

Hattiesburg—Water-works and Sewerage.—City will issue \$20,000 of bonds for sinking another artesian well for water supply, and to extend water and sewerage systems. Address "The Mayor."

Hattiesburg—Creosote and Turpentine Plant.—J. A. Carr & Bro. are erecting plant for manufacture of creosote, turpentine, tar, charcoal, etc., at cost of \$50,000.

Hermanville—Cotton Compress and Ginnery.—Hermanville Compress & Ginnery Co. has been incorporated by S. E. Dudley, J. A. Lord, J. D. Millsaps, W. F. Gordon and others.

Jackson—Mercantile.—Chartered: Southern Grocery & Drug Co., with capital of \$100,000.

Learned—Cotton Gin.—Learned Gin Co. has been incorporated, with capital of \$5000, by Clay Sharkey, J. W. Smith and others.

Magnolia—Cotton Mill.—J. H. Price, C. H. Stevens, E. W. Reid, J. E. Wolfe, A. C. Cherry and others will organize \$5000 company to establish mill with twelve looms.

Osyka—Mercantile.—Chartered: Osyka Mercantile Co., with capital of \$50,000, by H. L. White and others.

Oxford—Oil Mill.—Oxford Oil Mill Co., reported recently as incorporated with capital of \$45,000 and privilege of increasing to \$90,000, will build two-press 40-ton mill, and will open bids May 15 for erection of buildings.

Pascagoula—Electric-light Plant, Water-works, etc.—Pascagoula Railway & Power Co., organized with Chas. T. Ballard, president, will build electric-light and power plant, water-works, ice factories, etc.; capital \$400,000.

Sardis—Oil Mill.—J. H. Prouditt, A. W. Shands, J. B. Boothe and others are incorporators of Sardis Oil Mill Co., recently reported, with capital of \$40,000, for manufacture of cottonseed oil and fertilizers.

Shelby—Oil Mill.—Shelby Oil Co. has been organized, with paid-up capital of \$40,000, for erection of 40-ton brick cottonseed-oil mill. T. J. Poitevant is president; Geo. B. Shelby, vice-president; W. R. Early, secretary.

Utica—Cotton Gin, Grist Mill, etc.—J. B. Dudley, R. B. Latimer, E. H. Currie, F. J. Kelley and others have organized company for establishing cotton gin, grist mill, brick works, etc.; capital \$10,000.

MISSOURI.

Butler—Elevator.—People's Elevator Co. has been incorporated, with capital of \$6000, by C. C. Lyle, George Church, D. L. Haggard and others.

Carthage—Mining.—Neely Mining Co. has been incorporated, with capital of \$20,000, by

C. C. Catron, R. C. Friend, Chas. W. Neely and others.

Excelsior Springs—Light, Heat and Power Plant.—Excelsior Springs Light, Power, Heat & Water Co. has been incorporated, with capital of \$150,000, by John E. Lundstrom, Henry J. Arnold, Arthur Peters and others.

Kansas City—Cattle Company.—Chartered: Missouri Calf & Cattle Co., with capital of \$2000, by J. B. Ryan, H. C. Bates, A. E. Long and others.

Kansas City—Realty Company.—Rama Realty Co. has been incorporated, with capital of \$10,000, by Frank F. Brumback, Thos. P. Woodson and Herbert V. Jones.

Kansas City—Stone and Crusher Company.—Kansas City Stone & Crusher Co. has been incorporated, with capital of \$2000, by John Mahoney, John Pendergast and M. C. Byrne.

Kansas City—Pipe Line.—Board of public works has awarded contract to James Cotter at \$188,835 for constructing 48-inch steel pipe line from the Quindaro pumping station to Kaw Point.

Kansas City—Boiler Works.—Darby's Kansas City Boiler Works Co. has been incorporated, with capital of \$10,000, by George W. Darby, John E. Darby, Charles E. Darby and others.

Kansas City—Hay Company.—Chartered: Woolsey-Stahl Hay Co., with capital of \$10,000, by J. T. Woolsey and J. A. Stahl.

Polo—Telephone Company.—Polo & Richmond Telephone Co. has been incorporated, with capital of \$2500, by J. B. Craven, Sam Clevenger, J. C. Crowley and others.

Poplar Bluff—Gas Plant.—Federal Gas Co. of New York has applied for franchise to install gas plant at Poplar Bluff. J. R. Arrendale, M. C. Horton and George Bullock are among the local parties interested.

St. Louis—Chartered: St. Louis Chilled Bearing Co., with capital of \$35,000, by Edward A. Moore, Henry T. Jones, John B. Stranch and others.

St. Louis—Publishing.—Chartered: Louisiana Publishing Co., with capital of \$2000, by H. B. Lemon, Pierce B. Kennedy and others.

St. Louis—Fire-clay Works.—American Fire-clay Co. has been incorporated, with capital of \$30,000, by A. J. Hutchinson, R. H. Orr and W. F. Martin.

St. Louis—Machine Shops and Foundry.—Macgowan & Finnegan Foundry & Machine Co. has been incorporated, with capital of \$50,000, by P. S. Macgowan, H. P. Finnegan, Wm. McB. Smith and others.

St. Louis—Patents Company.—Brownell Patents Co. has increased capital from \$5000 to \$50,000.

St. Louis—Publishing.—Chartered: Exposition Publishing Co., with capital of \$2000, by H. B. Lemon, P. B. Kennedy and others.

St. Louis—Real Estate.—Chartered: Gehner Realty & Investment Co., with capital of \$500,000, by Aug. Gehner, A. H. Gehner, John A. Tamhogan and others.

St. Louis—Watch Company.—Gibbs-Marlow Watch Co. has increased capital from \$5000 to \$10,000.

NORTH CAROLINA.

Benson—Tobacco Prizery.—Chartered: Prize House Company, with capital of \$10,000, for conducting a general leaf-tobacco business, by Wilson Allen, E. T. Johnson, G. W. Cavanaugh and others.

Burlington—Timberland Development.—Central Manufacturing Co. has purchased 15,000,000 feet of pine timber, and will at an early date install two or more saw-mills in addition to one already in operation. Contract for output of these mills has not yet been made.

Cornelius—Furniture Company.—Union Furniture Co. has been incorporated, with capital of \$50,000, by J. B. Cornelius, F. C. Sherrill, P. A. Stough and others.

Durham—Snuff Factory.—American Tobacco Co. has purchased snuff factory of R. F. Morris & Son Manufacturing Co.

Dunn—Hardware Company.—Wade Hardware Co. has been incorporated, with capital of \$50,000, by M. L. Wade, J. J. Wade and D. H. Hood.

Enfield—Cotton Mill.—Walter Brown, recently of Baltimore, Md., has leased factory building and power plant from Dr. J. T. Bellamy, and will install machinery for manufacturing yarns, twines, rope, etc.

Fayetteville—Woodworking Factory.—Fayetteville Woodenware Co. contemplates installing machinery for manufacture of berry crates, veneer barrels, butter dishes, etc.

Granite Falls—Woodworking Factory.—Warlick & Whisnant, manufacturers of picker sticks, spokes, handles, etc., contemplate installing machinery for manufacture of shuttles.

Greensboro—Lumber Company.—Blue Ridge Lumber Co. has completed organization with C. E. Holton, president, and capital of \$20,000, and begun erection of its proposed mill.

Greensboro—Road Improvements.—Guilford county has decided affirmatively the issue of \$300,000 of road improvement bonds previously reported. Address "County Clerk."

Hamlet—Ice Company.—Hamlet Ice Co. has increased capital from \$10,000 to \$25,000.

Kinston—Drug Company.—Chartered: Kinston-Carolina Drug Co., with capital of \$10,000.

Lakeview—Shingle Mill.—Southern Development Co., 920-921 Colonial Building, Boston, Mass., is arranging to establish plant at Lakeview for manufacture of cypress and juniper shingles.

Lenkaville—Coal Mines.—Charles Thomas has optioned and will develop coal lands.

Oxford—Water-works.—City has decided affirmatively issue of \$25,000 of bonds for construction of water-works previously reported. Address "The Mayor."

Scotland Neck, N. C.—Electric-light Plant.—City has decided affirmatively the issue of \$10,000 of bonds for electric-light plant previously noted. Address "The Mayor."

Spray—Cotton and Woolen Mills.—Dispatches state that B. Frank Mebane and German capitalists have purchased 4000 acres of land as site for a cotton mill of 200,000 spindles and 14,000 looms, and a large woolen blanket mill.

Statesville—Cotton Mill.—Bloomfield Manufacturing Co., reported last week with \$100,000 capital, will build 5000-spindle mill. No contracts have been awarded. Address care A. B. Saunders.

Taylorsville—Woodworking Plant.—H. T. Campbell & Son will add machinery for the manufacture of spokes to their woodworking plant.

Thomasville—Chair Factory.—Chartered: Queen Chair Co., with capital of \$10,000, for manufacture of chairs, by Chas. M. Hoover, G. M. Hoover, J. A. Green and others.

Wilkesboro—Timber Lands.—G. W. Hinshaw of Winston, N. C., has purchased, probably for development, 4000 acres of timber land near Wilkesboro.

Wilmington—Marine Railway.—Diamond Steamboat & Wrecking Co. will build marine railway.

Winston-Salem—Water-works.—Surveys are being made for municipal works. Address "City Engineer."

SOUTH CAROLINA.

Bishopville—Lighting Plant.—Lee County Manufacturing Co. (previously reported) has been granted franchise for lighting the city.

Cameron—Oil Mill.—Cameron Oil Mill Co., reported recently as incorporated with capital of \$20,000, has completed organization, electing D. O. Herbert, president; F. I. Culler, vice-president; H. A. Rast, secretary-treasurer, and J. H. Haigler, general manager.

Charleston—Gold and Silver Mines.—Magnolia Mines Co., reported recently as incorporated with capital of \$300,000, has completed its organization, electing H. J. Forsdick, president; W. W. Schofield, vice-president; John M. Sears, secretary and treasurer, all of Memphis, Tenn., where company's principal office will be. Gold and silver properties in York county, South Carolina, will be developed extensively, and contract has been made for installation of 50-ton concentrating plant.

Chicks Springs—Bottling Works.—Chicks Springs Co. has been incorporated, with capital of \$35,000, for conducting bottling business, by W. J. and W. F. Thackston, W. S. Pack, S. F. Lowry and others.

Greenwood—Mercantile.—Chartered: E. W. Stahlaker Company, with capital of \$5000, by E. W. Stahlaker (president) and others.

Lumber—Lumber Mill.—Ernest Williams of Lynchburg, Va., and associates have purchased lumber mills of Bridges-McKethan Lumber Co. at Lumber, and will operate under same name.

Manning—Water-works.—City contemplates constructing system of water-works or contracting for installation of such a plant. Address E. J. Browne, clerk and treasurer.

TENNESSEE.

Ashwood—Flour Mill.—J. O. Walker and J. A. Jones have purchased flour mill of Star Milling Co., and will operate same.

Carthage—Bridge.—City has voted issuance of \$50,000 of bonds for constructing bridge across Cumberland river. Address "The Mayor."

Covington—Compress, etc.—Covington Compress & Warehouse Co. has been incorporated, with capital of \$25,000, by Chas. F. Farnsworth and J. A. Evans of Memphis, Tenn.

Crawford—Coal and Iron Mines.—Crawford Coal & Iron Co. contemplates extensive enlargements, including installation of electric haulage plant.

Embreerville—Iron Furnace.—Embre Iron Co. has been organized, with C. P. Perrin, president; I. L. Elliot, vice-president; T. C. Clarke, treasurer, and V. S. Paine, general manager, for improving, enlarging and operating the Embreeville furnace at Embreeville, recently reported as having been purchased by C. P. Perrin of New York from the Virginia Iron, Coal & Coke Co. Improvements include new machine shop, additional boilers and another blowing engine. Annual capacity is 45,000 tons. Address is 71 Broadway, New York, N. Y.

Knoxville—Machine Shops.—Southern Railway Co., C. H. Ackert, general manager, Washington, D. C., will enlarge and double capacity of its machine shops at Lonsdale, near Knoxville.

Mascot—Zinc Mines.—Layton Zinc Co. is being organized at Knoxville for development of the Clay Evans-Baldwin zinc properties near Mascot. Address H. Clay Evans of Chattanooga, Tenn.

Memphis—Paper Mill.—S. K. Wells of Cincinnati, Ohio, is in correspondence with the mayor relative to the establishment of a paper mill at Memphis.

Memphis—Wallpaper Company.—Southern Wallpaper Co. has been incorporated, with capital of \$10,000, by V. S. Lane, R. F. Dollison, G. M. Tagg and others.

Memphis—Wheelbarrow Factory.—Lansing Wheelbarrow Co. of Lansing, Mich., will build a branch wheelbarrow factory at Memphis. About 12,500 acres of timber land in Arkansas near Memphis will be developed in connection with the factory.

Morristown—Knitting Mill.—J. B. McCord and G. A. Russell will establish knitting mill.

Nashville—Mercantile.—Chartered: Walton Cantrell Company, with capital of \$12,000, by J. W. Cantrell, J. G. Cantrell, G. M. D. Cantrell, Len Flite and others.

TEXAS.

Austin—Cotton product Mill.—Chartered: Texas Cottonseed Product Manufacturing Co., with capital of \$50,000, to erect mill for manufacturing cotton products, by George B. Zimpelman, W. H. Thaxton and V. L. Brooks.

Ballinger—Cotton-oil Mill.—Ballinger Cotton Oil Co. has been incorporated, with capital of \$75,000, by G. M. Vaughan, W. J. Miller and J. Y. Pearce.

Bay City—Street Improvements.—City has voted issue of \$15,000 for improving streets. Address "The Mayor."

Beaumont—Paving and Sewers.—H. W. Downey & Co. have contract at \$25,000 for paving and sewers for city.

Beaumont—Builders' Material Factory.—Jackson Weatherly Manufacturing Co., for manufacture of builders' material, has been incorporated, with capital of \$25,000, by Geo. L. Jackson, E. B. Weatherly, Byron Barnes and others.

Beaumont—Oil Wells.—Shoestring Oil Co. has been incorporated, with capital of \$25,000, by W. J. Blewit, W. M. Carroll, H. D. Keith and others.

Beaumont—Oil Wells, etc.—Ogden Oil & Land Co. has been incorporated, with capital of \$100,000, by H. F. Best of Port Arthur, George Adams, E. C. Ogden and others of Beaumont.

Bonham—Brick Works.—Bonham Pressed Brick Co. has been incorporated, with capital of \$60,000, by E. D. Steger, V. Steger, Bonham; D. H. Scott, B. J. Baldwin, Paris, Texas, and others.

Bonham.—Nunn T. Jones Company has increased capital from \$10,000 to \$15,000.

Corseana—Lubricating Oils and Greases.—Richardson-Gay Oil Co. has been incorporated, with capital of \$30,000, for manufacturing lubricating oils and greases, by T. J. Gay, James Garrity, R. M. Collins and others.

Dalhart—Commercial.—Chartered: O. K. Commercial Co., with capital of \$20,000, by J. E. George and others.

Dallas—Compress Company.—Shippers' Compress Co. has increased capital to \$100,000.

Dallas—Cigar Company.—Manilla Cigar Co. has been incorporated, with capital of \$30,000, by Leo Gale, Chas. S. Nasits and A. H. Fant.

Eagle Pass—Printing.—Chartered: Guide

Printing Co., with capital of \$5,000, by W. A. Bonnet, S. P. Simpson and W. J. Niggil.

El Paso—Mercantile.—Chartered: Deanderson Grocery Co., with capital of \$50,000, by W. L. Dyson and others.

Fort Stockton—Irrigation System.—Santa Rosa Irrigation Co. has been incorporated, with capital of \$10,000, to construct and operate canals, reservoirs, etc., by J. M. McKenzie, E. W. and T. N. McKenzie.

Fort Worth—Mercantile.—Chartered: Bonz Grain & Feed Co., with capital of \$3,000, by David Bonz and others.

Fort Worth—Harness and Saddle Factory.—T. R. James & Sons, manufacturers of harness and saddlery, have increased capital to \$100,000 from \$50,000.

Fort Worth—Real Estate.—West Texas Development Co., with capital of \$50,000, has been incorporated by E. F. Lanham, G. B. Carden, B. Moore of Gatesville, Texas, and E. W. Edwards of Fort Worth.

Gainesville—Compress.—North Texas Compress Co. has purchased and will operate compress of Neil P. Anderson & Co.

Gainesville—Cotton Compress.—North Texas Compress & Warehouse Co. has been incorporated, with capital of \$50,000, by T. C. Cooper, R. S. Rose and William McKennie, and has purchased and will operate cotton compress of Neil P. Anderson & Co.

Galveston—Manufacturing Stationers.—Clarke & Courts will build either two or five-story addition to their present building, and have not selected architect as yet; also contemplate installation of full electrical equipment for power and lights, with individual motors for larger pieces of machinery.

Hallettsville—Bridges.—Lavaca county (not city of Hallettsville, as lately reported) has issued \$25,000 of bonds for bridge purposes. Address John Buchanan, county clerk.

Hillsboro—Hardware Company.—Bond-Turner Hardware Co. has been incorporated, with capital of \$25,000, by George D. Bond, J. O. Turner and others.

Houston—Sugar Mill.—Penitentiary board has awarded contract to Payne & Joubert of New Orleans, La., for sugar mill to be located at the Harlem State farm in Fort Bend county, to have capacity of 500 tons of sugar per day and to cost \$500,000.

Houston—Lumber Company.—Texas & Louisiana Lumber Co. has increased capital from \$20,000 to \$100,000.

Houston—Building-material Factory.—Brown-McLaughlin Company has been incorporated, with capital of \$100,000, for manufacturing building materials, by Edmund Brown, J. E. Brown and H. P. McLaughlin.

Hubbard City—Hot Wells.—Company has been organized, with capital of \$25,000, and J. M. Carroll, president; W. A. Wood, vice-president; J. A. Wood, secretary, and J. B. McDaniel, treasurer, for developing the hot wells of Hubbard City.

Huntington—Supply Company.—Huntington Supply Co. has been incorporated, with capital of \$5,000, by L. E. Baird and others.

Laredo—Electric-light Plant.—Laredo Electric & Railway Co. will make extensive improvements and extensions.

League City—Broom and Box Factory.—Power Broom & Box Factory has been incorporated, with capital of \$3,000, by J. M. Alford, B. A. Riggs and R. McGregor.

Llano—Electric-light Plant, Water-works, etc.—Llano Milling & Manufacturing Co. contemplates issuing bonds for improvement of water-works, electric-light plant and sewerage system.

Longview—Brick Works.—Longview Pressed Brick Co. has been incorporated, with capital of \$20,000, by J. R. Castleberry, R. F. Echols, George Echols and P. E. Coleman.

McKinney—Telephone System.—Central Texas Telephone & Telegraph Co. has been organized, with capital of \$100,000, for building central energy telephone plants at cost of \$40,000, and to construct and operate exchanges and toll lines in twelve adjacent counties. Office of company for present will be with the Grayson County Telephone Co. at Sherman, Texas (which company was lately reported as having increased capital from \$170,000 to \$340,000).

Ottine—Electric-light Plant.—Company will, it is said, be organized for erection of electric-light plant. Address "The Mayor."

Palestine—Crate and Box Factory.—N. G. Nagle and others will organize \$150,000 company for erection of crate and box factory.

Powell—Refinery.—Charles T. Madison of New Orleans, La., has purchased and will operate the Powell refinery of the Independent Oil Co. Has also secured oil properties in the Powell district, and will develop extensively.

San Antonio—Irrigation System.—Char-

tered: Meerscheldt & Stieren Irrigation Co., with capital of \$30,000, by Paul Meerscheldt, C. A. Stieren, August Faltin and others.

San Antonio—Stone Works.—Texas Hydraulic Stone Co. has been incorporated, with capital of \$30,000, for manufacture of artificial building stone, by H. L. Scott, W. H. Curnal, T. J. Finch and W. F. Derr.

San Antonio—Publishing.—Catholic Publishing Co. has increased capital from \$200 to \$400.

San Antonio—Steel Works.—Southern Structural Steel Co., with capital of \$100,000, has been incorporated for manufacture of structural steel, by D. F. Youngblood, J. A. Youngblood, W. M. Cornett and others.

Sour Lake—Light and Power Plant.—Sour Lake Light & Power Co. has been incorporated, with capital of \$10,000, by D. O. Lively, T. L. Donohue and F. W. Freeman, for erection of electric-light and power plant with capacity to furnish 1500 incandescent 16-candle-power lamps. Company also contemplates construction of system of water-works.

Taylor—Granite and Marble Works.—Hugh Veale of Llano, Texas, will establish marble and granite works at Taylor.

Taylor—Cotton-oil Mill.—Taylor Cotton Oil Co. has increased capital from \$20,000 to \$100,000.

Waco—Milling.—Chartered: Southern Mexico Milling Co., with capital of \$600, by C. T. Young, W. H. McCollough and W. H. Behrens.

Winchell—Mercantile.—Chartered: Winchell Mercantile Co., with capital of \$12,000, by J. A. Abney and others.

VIRGINIA.

Amelia County—Saw-mills.—F. Sitterding, president Virginia Passenger & Power Co., Richmond, Va., has purchased 25,000,000 feet of lumber in Amelia county, and will build three or four saw-mills at once.

Boydton—Saw-mill, etc.—B. E. Cogbill and associates have purchased and will operate saw-mill and timber lands of T. and F. B. Roberts.

Franklin—Lumber Mills, etc.—Wiley, Harker & Co. of New York, with branches at Petersburg and Norfolk, Va., and the Camp Manufacturing Co. of Franklin have consolidated and will operate as the Wiley, Harker & Camp Co., with E. M. Wiley, president; R. J. Camp, vice-president; John Harker, treasurer, and Charles T. Stran, secretary. Company will handle about 200,000,000 feet of pine timber per year.

Low Moor—Furnace.—New furnace of Low Moor Iron Co. will be blown in about July 1.

Norfolk—Land Improvement.—Sterling Place Co. has purchased 250 acres of land near Norfolk, which it will improve as a suburb, erecting dwellings, constructing sewerage, etc.

Norfolk—Peanut Plants.—American Edible Nut Co. will be incorporated under New Jersey laws, with \$1,250,000 preferred and \$2,750,000 common stock, and will, it is reported, absorb the eighteen peanut plants near Norfolk, where company's principal office will be. Incorporators are Adolph W. Ehrman and W. E. Weatherly, Detroit, Mich.; Geo. E. Hardy, Grand Rapids, Mich.; John Ryan, Bad Axe, Mich.; John M. Ealy, Cairo, Mich., and H. S. Griggs, Chicago, Ill.

Virginia—Tannin-extract Plants.—J. H. Robinson, Murphy, N. C., and M. McCoy, Wheeling, W. Va., will establish two tannin-extract and tannery plants in Smyth and Grayson counties, each to cost \$100,000 and have capacity of sixty barrels of extract per day.

West Point—Water-works.—City will vote on the issuance of \$20,000 of bonds for the construction of water-works. Address "The Mayor."

WEST VIRGINIA.

Bluefield—Printing Plant.—Bluefield Printing & Manufacturing Co., reported lately as incorporated, will absorb business of Summit City Printing Co. and Interstate Advertiser, and will erect new plant.

Bluefield—Fuel Company.—Chartered: Pocahontas Fuel Co., with capital of \$10,000, by W. A. Young, D. E. Lahey, J. H. Hardy, H. C. Jones and others.

Bonner—Coal Mines.—C. C. Sharp and J. F. Stone, reported recently as having purchased 20,000 acres of land on Gauley river, are president and secretary, respectively, of the Raven Coal & Coke Co. of Columbus, Ohio, which has made the purchase. The president will be in charge of whatever improvements are to be made.

Charleston—Coal Mines.—Kelley's Creek Colliery Co. has been incorporated, with capital stock of \$500,000, by J. W. Dawson, Geo. E. Price, F. M. Staunton, Harrison B. Smith and others.

Charleston—Oil and Gas Wells.—Wolf Penn Extension Oil & Gas Co. has been incorporated, with capital of \$300,000, by Chas. M. Hudson, Wm. W. Rook, Victor Seydel and others, all of New York city, and Moses Lyman of Lakeville, Conn.

Clarksburg—Flour Mill.—Gem Milling Co. will probably rebuild its flour mill lately burned.

Elkins—Timber-land Development.—D. D. Hazeltine has purchased mills and timber properties of C. H. Welmer, and will improve and develop same on extensive scale.

Elkins—Lumber Mills.—R. M. Smith of Parkersburg, W. Va., has purchased Exelsior Lumber Co.'s property near Elkins, and will operate.

Elkins—Coal Mines.—Sand Fork Coal & Coke Co. has been incorporated, with capital stock of \$2,000,000, for conducting coal-mining and coke-manufacturing business, by Henry G. Davis, S. B. Elkins, John T. Davis, Arthur Lee and Richard Elkins.

Fairmont—Coal Mines.—It is reported that the Wabash Railroad, Jos. Ramsey, Jr., president, St. Louis, Mo., has purchased and will develop 60,000 acres of coal lands near Fairmont.

Fairmont—Medical Company.—Odbert Medical Co. has been incorporated, with capital of \$50,000, by C. H. Odbert, Sam R. Mizlin, A. Howard Fleming and others.

Fairmont—Coal Mines.—Fairmont Building & Investment Co. has been incorporated for mining coal, manufacturing brick, operating gas plants, etc., with capital of \$25,000, by W. S. Black, C. S. Riggs, F. C. Davis and others.

Farmington—Development.—Farmington Development Co. has been incorporated, with capital of \$15,000, for dealing in real estate, erecting dwellings, manufacturing brick, etc., by Wilbur H. Veach, John C. Hallam, John M. Hagerty and others.

Fayetteville—Coal Mines.—S. L. Walker, Sam Hutchinson, C. R. Summerfield and others will incorporate the Scott Colliery Co., for developing 700 acres of coal land on the Gauley river.

Huntington—Paper Mill.—West Virginia & Southern Paper Co., reported recently under West Virginia as incorporated with capital of \$300,000, is investigating Huntington as site for its proposed paper mill. H. A. Hanson, West Medford, Mass.; W. B. Denison, Chelsea, Mass.; Lewis A. Burleigh, Augusta, Maine, and others are incorporators.

Huntington—Bottling Works.—L. A. Wolcott Company has been organized for manufacturing and bottling coca-cola and other beverages; L. A. Wolcott, president and general manager.

Huntington—Construction.—Chartered: George F. Miller Company, with capital of \$100,000, for conducting general construction business, by George F. Miller, C. W. Watts, R. L. O'Neal and others.

Mannington—Tool Company.—Wilson Fishing & Drilling Tool Co. has been incorporated to manufacture all kinds of fishing and drilling tools, with capital of \$5,000, by W. M. Wilson, P. L. Hoffman, D. L. Wilson and others.

Morgantown—Mining.—Chartered: Wilgus Mining Co., to develop gold, silver, copper, coal, etc., mines, with capital of \$50,000, by E. M. Grant, C. W. Huston, T. B. Wilgus and others.

Morgantown—Real Estate.—Monongahela Building Co. has been incorporated, with capital of \$40,000, for improving real estate by erection of buildings, etc., by Joseph H. McDermott, J. M. G. Brown, Howard L. Swisher and others.

Nicholas County—Coal Mines.—W. H. Kearfott of Pittsburgh, Pa., secretary of West Virginia Land & Development Co., has purchased and will develop 10,000 acres of coal lands in Nicholas county.

Panther—Contracting Company.—Chartered: M. N. Moorman, Jr., Company, with capital of \$25,000, by M. N. Moorman, Jr., W. L. Moorman, W. T. Lindsay and others, all of Lynchburg, Va.

Piedmont—Coal Mines, etc.—Adams Creek Coal & Coke Co. has been incorporated, with capital of \$30,000, by N. M. Ambrose, W. F. Hummer of Washington and Z. T. Kabach, Piedmont.

Pratt—Coal Mines.—Morton Coal Co. has been incorporated, with capital of \$50,000, by H. L. Kilpatrick, Quin Morton, D. H. Morton of Macdonald, W. Va.; F. M. Bailey and F. H. Denning of Mt. Hope.

Randall—Oil and Gas Wells.—Keystone Industrial Co. has been incorporated, with capital stock of \$500,000, to drill and operate oil and gas wells, etc., by Davis S. Brewer of Randall, Leopold Segivart, August Bachler of Morgantown and others.

Shinnston—Furniture Factory.—Furniture

factory will be erected. Address Shinnston Development Co.

Sistersville—Boiler Works.—E. A. Ryan is having plans made for building large addition to his boiler works.

Sistersville—Gas Works.—Paden Gas Co. has been incorporated, with capital of \$50,000, for developing gas, coal and other mineral properties, by Thomas A. Watkins, Robert Miller of Pittsburg, Pa.; C. A. King, E. B. Wallace and H. W. McCoy of Sistersville.

Spencer—Water-works, etc.—Crystal Water-Works Co. has been incorporated, with capital of \$25,000, to operate water-works, electric-power plant and ice factory, by P. E. Adams, H. C. Woodyard, John Kirk, G. F. Stone and others.*

Waterloo—Telephone System.—Waterloo, Buffalo & Windfield Telephone Co. has been incorporated, with capital of \$5000, by Chas. Buxton, Chas. Riffe, E. A. Cossin and others.

Wheeling—Construction Works.—Wheeling Erecting Co. has been incorporated for constructing bridges, viaducts, buildings, etc., by J. B. Hoffman, Benwood, W. Va.; W. H. Cochran, Martins Ferry, Ohio; J. E. Taylor, S. W. Morrison and others of Wheeling.

INDIAN TERRITORY.

Madill—Telephone Extension.—Tishomingo Telephone Co., Tishomingo, I. T., will extend its system from Madill to Denison, Texas.

OKLAHOMA TERRITORY.

Guthrie—Real Estate.—Guthrie Real Estate & Development Co. has been incorporated, with capital of \$10,000, by I. N. Smithson, H. E. Booth, J. M. Dolph and H. D. Todd.

Lawton—Water-works.—Water-works system will be constructed for the city. Gerard H. Matties, chief engineer of the hydraulic department of the United States Geological Survey, will have charge.

Leger—Telephone System.—Chartered: Leger Telephone Co., with capital of \$5000, by R. K. Wooten of Chickasha, I. T.; W. T. Talley and John B. Jones of Granite, O. T.

Leger—Mercantile.—Chartered: Bonebrake Hightower Wholesale Co., with capital of \$5000, by C. C. Hightower and others.

Mangum—Water-works.—City has voted issue of \$30,000 of bonds for construction of water-works lately reported. Address "The Mayor."

Oklahoma City—Oil and Gas Company.—Cherokee Oil & Gas Co. has been incorporated, with capital stock of \$1,000,000, by C. G. Jones, J. H. Marshall and L. Guthrie.

Oklahoma City—Mercantile.—D. F. Harness, John Threngill, F. B. Gaines of Lexington, O. T., and others are organizing \$150,000 dry goods company.

Shawnee—Cotton Company.—A. E. Nelson Cotton Co. has been incorporated, with capital of \$25,000, by A. E. Nelson, R. G. Nelson, T. W. Perkins and others.

Weatherford—Telephone System.—Southwestern Telephone Co. has been incorporated for constructing telephone system, by J. M. Noble, E. E. Westerveldt, E. D. Nims, V. V. Harris and others.

BUILDING NOTES.

*Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

Abbeville, Ga.—Bank Building.—W. A. Cherry will erect bank building.

Atlanta, Texas—School.—City will issue \$6000 of bonds for building addition to present schoolhouse. Address "The Mayor."

Baltimore, Md.—Dwellings.—A. F. Perot will erect twenty-three two-story dwellings at cost of \$50,000.

Baltimore, Md.—Factory Building.—John B. Buckley has contract for erecting \$15,000 factory building of George Esselman & Co., recently mentioned.

Baltimore, Md.—Store Building.—J. H. Walsh & Bro. have contract for erecting store building for E. B. Hunting, previously mentioned.

Baltimore, Md.—Residence.—Thomas L. Jones & Son have contract for building addition to residence of W. T. Wilson at cost of \$10,000.

Baltimore, Md.—Synagogue.—Aquila M. Carroll has contract for remodeling old High Street M. E. Church into synagogue at cost of \$30,000.

Baltimore, Md.—Warehouse and Office Building.—Chas. E. Cassell has completed plans for proposed warehouse and office building of Arthur and G. Herbert Boehm.

Baltimore, Md.—Boiler-house.—C. S. M. Williamson has contract to erect one-story brick and steel boiler-house for Maryland University Hospital.

Baltimore, Md.—Hotel.—The Southern Company has been incorporated, with capital of \$100,000, for conducting and operating hotels, by Frederick H. Hoover, Paul M. Burnett, Thomas Mahool and Daniel T. Bowers.

Baltimore, Md.—Church.—Thomas L. Jones & Son have contract at \$46,000 for erecting new edifice for St. Paul's Reformed Church.

Bay City, Texas—Business Building.—Bay City Grocery Co. has awarded contract for erection of building 100x125 feet, with three departments to be occupied by National Bank and Bay City Hardware Co.

Birmingham, Ala.—Parsonage.—First Methodist Church will erect \$15,000 parsonage of brick and stone. Address T. T. Hillman.

Birmingham, Ala.—Synagogue.—Allen J. Krebs has contract at \$10,000 for building synagogue of Knesseth Israel congregation, previously reported.

Chattanooga, Tenn.—Library Building.—Plans of W. T. Downing have been accepted for proposed Carnegie library, as lately reported. Detailed drawings and working plans will be ready in about one month, after which bids will be taken for construction and equipment; total cost \$50,000. Robert Hooke, city engineer, will be superintendent of construction, and will have entire charge of work. No contracts whatever have as yet been awarded.

Chicks Springs, S. C.—Hotel.—Chicks Springs Co., reported as incorporated, will also, it is said, erect hotel.

Chipley, Ga.—School.—City will enlarge and improve school building at cost of \$6000.

Columbia, N. C.—Courthouse.—Tyrrell county will issue \$15,000 of bonds for building courthouse, and will open bids for erection June 1; will be two stories, of brick, 41x70 feet. Address J. A. Spruill, secretary building committee, Box 44.

Columbia, S. C.—Church.—St. Peter's Catholic Church has had plans made by Mike Helster for erection of \$30,000 structure. Address Father Hegarty.

Cullman, Ala.—Depot.—Louisville & Nashville Railroad, Geo. E. Evans, general manager, Louisville, Ky., will erect depot at Cullman.

Delhi, La.—Bank Building.—Bank of Delhi (lately organized), E. Kennedy, cashier, will erect new building.

Echo, Texas—Buildings.—Sealed proposals will be received by the T. & N. O. R. R. Co. at office of E. B. Cushing, engineer, Houston, Texas, until May 20 for furnishing materials and completing following terminal buildings: 16-stall brick roundhouse, two-story brick sandhouse, frame and corrugated-iron blacksmith shop and frame pump's residence. Information may be obtained by applying to C. R. Morrill, resident engineer, Algiers, La. Bids are to be submitted on blank forms of proposal furnished for that purpose and accompanied by certified check for 5 per cent. of amount of each bid. Bond required and usual rights reserved.

Florence, Ala.—Hotel.—Jefferson Hotel will be remodeled. For particulars address M. J. Dillard or R. L. Glenn.

Fort Worth, Texas—Store Building.—H. Tanner will erect two-story brick store building to cost \$5000.

Fort Worth, Texas—Home.—Home for widows and orphans will be established by the Knights of Pythias of Texas; \$10,000 is now available for the purpose. No plans have as yet been prepared. Address for particulars Henry Miller, G. K. of R. and S., at Weatherford, Texas.

Gadsden, Ala.—City Hall.—City will build \$12,000 City Hall. Address "The Mayor."

Gadsden, Ala.—George S. Vann and T. E. Paschal will erect two-story brick business building.

Gadsden, Ala.—Business Building.—W. L. Sampey will erect two-story brick business building 40x110 feet.

Grafton, W. Va.—Schools.—City will vote June 9 on issue of \$55,000 of bonds for erecting new school buildings and remodeling old ones. No plans have as yet been adopted. James W. Holt, president board of education, may be addressed.

Greensboro, N. C.—Postoffice, etc.—Miles & Bratt of Atlanta, Ga. have contract at \$42,500, exclusive of heating apparatus, for extension of postoffice at Greensboro, recently reported.

Greenville, S. C.—Warehouse.—O. L. Joyner and W. H. Dail, Jr., will build tobacco warehouse 100x250 feet.

Gulfport, Miss.—Hotel.—Great Southern Hotel Co. has been incorporated, with capital

of \$250,000, by J. T. Jones, J. H. Jones, R. E. Powers and E. J. Bowers.

Houston, Texas—Fire Station.—City will have plans prepared at once for \$30,000 fire station. Address "The Mayor."

Huntsville, Ala.—Y. M. C. A. Building.—Y. M. C. A. building will probably be erected. Address "The Secretary."

Jacksonville, Fla.—Theater.—J. R. Walsh has completed plans for theater previously reported to be erected, and in which J. D. Burbridge was interested; building will be three stories, of brick and stone.

Kansas City, Mo.—Business Buildings.—John H. Miller has purchased site at \$17,000 and will erect a number of business buildings.

Lakeview, N. C.—Residence.—Mrs. H. M. Holleman of Boston, Mass., will have plans made at once for erection of dwelling at Lakeview.

Louisville, Ky.—Seminary.—Dodd & Cobb have prepared plans for Presbyterian Theological Seminary, and are asking for bids.

Louisville, Ky.—Depot and Terminals.—Chicago, Indianapolis & Louisville Railroad will expend \$175,000 in erection of new depot and terminals. For particulars address W. A. Wallace, chief engineer, Chicago, Ill.

Macon, Ga.—Masonic Temple.—Max Meyerhardt, chairman board of trustees, Rome, Ga., will receive plans for erection of Masonic Home for Georgia near Macon; plans to call for a building or series of buildings to cost eventually from \$50,000 to \$75,000, which can be built and completed in part at cost of \$20,000, part so built to accommodate from thirty to fifty members. Usual rights reserved.

Marshall, Texas—Bank Building.—Marshall National Bank will erect two-story brick and stone building.

Memphis, Tenn.—Custom-house Addition.—George Moore & Co. of Nashville, Tenn., will be awarded contract at \$197,400 for building custom-house addition in Memphis previously reported.

Memphis, Tenn.—Stables.—H. T. Bruce & Co. will erect \$35,000 brick stables.

Memphis, Tenn.—Institute.—S. P. Read, John R. Pepper and J. M. Goodbar, trustees Goodwyn Institute, are advertising for plans for proposed institute buildings.

Meridian, Miss.—Building.—The L. H. Arky building will be improved and remodeled at cost of \$5000. Address L. H. Arky.

Mincola, Texas—Church.—Christian Church will erect \$5000 brick edifice. Address "The Pastor."

Morgantown, W. Va.—Theater.—Chartered: Swisher's Theater Co., with capital of \$100,000, by H. L. Swisher, J. Mills, A. F. Heenan and others.

Moundsville, W. Va.—School.—Brick schoolhouse will be erected. Address board of education.

Moundsville, W. Va.—Bank Building.—Mercantile Banking & Trust Co. will erect building; Friend Cox, C. E. Haddock, A. L. Francis and J. A. Bloyd, building committee.

Moundsville, W. Va.—Business Building.—Hess & Fisher have contract for erecting \$11,000 building for Schaub Plumbing Co.

Nashville, Tenn.—John A. Drake of Chicago, Ill., will, it is reported, erect \$100,000 residence and \$40,000 stables at Nashville.

Norfolk, Va.—Library.—Contract for erection of new Norfolk public library has been awarded to E. F. Tatterson; will be two stories, of brick, stone, iron and fireproof construction. Herbert D. Hale of Boston and Henry G. Morse, Jr., of Philadelphia, Pa., prepared the plans.

Norfolk, Va.—Apartment-house.—Breese & Ferguson, architects, have completed plans for remodeling the Tazewell apartment-house.

Norfolk, Va.—Hotel.—New York architects have completed plans for the proposed six-story Spottswood hotel previously reported. Benjamin Oure of New York is interested.

Ocala, Fla.—Opera-house.—Two-story brick theater building will be erected 60x100 feet. For particulars address R. E. Yonge, Sr.

Paducah, Ky.—Postoffice and Courthouse Extension.—James Knox Taylor, supervising architect, Treasury Department, Washington, D. C., will open bids June 11 for construction (including electric wiring and conduits, but excluding heating apparatus) of extension to United States courthouse, post-office building, etc., at Paducah, in accordance with plans and specifications, copies of which may be had at above office or at office of custodian, Paducah.

Piedmont, W. Va.—Business Building.—Wm. T. Jamieson will erect three-story brick business building.

Richmond, Va.—Cottages.—Charles B.

Cooke will erect a number of cottages at Highland Park.*

Richmond, Va.—Business Building.—Presbyterian Committee of Publication will erect business building to cost \$30,000. Architect has not been selected nor contracts awarded.*

Richmond, Va.—Bank and Office Building.—J. E. & A. L. Pennock of Philadelphia, Pa., have contract at \$100,000 for erecting office and bank building previously reported to be built by Richmond National Bank.

Ruston, La.—Church.—J. S. Lackey of St. Louis, Mo., has contract at \$13,000 for erecting proposed Methodist church.

Scotland Neck, N. C.—Schools.—City has decided to issue \$10,000 of bonds for school buildings. Address "The Mayor."

St. Louis, Mo.—Dwelling.—Charles Parsons, president of State Bank, is having plans made for erection of dwelling.

Sour Lake, Texas—Office Building.—Paul H. Traylor and Henry Malmgren will erect office building.

Swainsboro, Ga.—Warehouse.—Jesse Thompson will erect cotton warehouse of brick.

Waco, Texas—Synagogue.—Agudath Jacob congregation will begin work at once on erection of its proposed \$15,000 synagogue.

Washington, D. C.—Hall.—Brennan Construction Co. of Georgetown, D. C., has contract for building new Trinity Parish hall; will be two stories, and cost \$60,000.

Washington, D. C.—Apartment-house.—Oscar W. White will erect five-story apartment-house.

Washington, D. C.—Business Building.—Potomac Realty Co. is having plans made by J. H. De Sibour and Bruce Price for erection of \$60,000 building.

Washington, D. C.—Residence.—R. Dickinson Jewett of New York is having plans made by March & Peter for erection of \$90,000 brick residence.

Wilmington, N. C.—Lodge Building.—Wilmington Lodge, I. O. O. F., will erect \$25,000 structure.

Woodville, Texas—School.—Schoolhouse to cost about \$6000 will be erected; plans, specifications and bids are wanted. Address W. P. Chapman, chairman building committee.

Wytheville, Va.—Machinery Warehouse.—R. P. Johnson will erect one-story frame warehouse 80x90 feet.*

RAILROAD CONSTRUCTION.

Railways.

Athens, Ga.—Reported that an Ohio syndicate is considering plans to build an electric railway from Athens to Carnesville, thirty miles, and at the latter place subscriptions have been raised for the road.

Baltimore, Md.—The report that the Baltimore & Ohio Railroad Co. is considering the practicability of building an extension from Belting, W. Va., through Virginia to the Chesapeake bay is officially denied.

Charleston, W. Va.—The Kelley's Creek & Northwestern Railway Co. has been incorporated to build a railway from the mouth of Kelley's creek to Sutton, W. Va. The incorporators are F. M. Staunton, J. W. Dawson, George E. Price and S. L. Flournoy of Charleston, and Charles Willis Ward of Borough of Queens, New York city.

Chase City, Va.—The Blackstone & Southern Railroad is reported to have begun track-laying at the crossing of the Norfolk & Western Railroad at Blackstone. Grading is progressing on other parts of the line, and the engineers are making the location survey from Blackstone to McKinney.

Chicago, Ill.—The Chicago, Indianapolis & Louisville Railway is reported to have purchased in Louisville, Ky., four lots of ground from 100 to 1106 W. Main street for freight terminals. W. A. Wallace is chief engineer at Chicago.

Demopolis, Ala.—Judge John C. Anderson writes the Manufacturers' Record stating that the proposed Demopolis & Gulf Railroad Co. is to be chartered to build a line from Demopolis to Pensacola, Fla. First it will connect Demopolis with Linden, sixteen miles. The total length of line would be about 150 miles.

Des Moines, Iowa.—Mrs. Alice M. Butler, Des Moines, who is reported to represent the syndicate which built the electric railway from Kansas City, Mo., to Leavenworth, Kan., is now reported to be investigating plans to build a line from St. Joseph, Mo., to connect with the Leavenworth road.

Elizabethton, Tenn.—The Eastern Tennessee Railway Co. has been incorporated to build a line from Elizabethton to the headwaters of Bone creek. The incorporators are Frank R. Whiting, William S. Whiting, Jas. D. Jenkins, John W. Tipton and Lee F. Miller.

Elkins, Ark.—Engineers are surveying for the Elkins & Huntsville Central Railroad to run from Elkins via Jasper to Little Rock. F. M. Billings is engineer; A. F. Stanford, assistant engineer. The 'Frisco is reported to be interested.

Esau, Ark.—The Fourche River & Southern Railroad has been chartered to build a 12-mile lumber line from Esau, in Parish county, via Fletcher to Moab. The incorporators are B. Falst, G. Falst, G. Klaisse, G. Frey, R. Falst, Charles Wurx, A. Finkbeiner, C. W. Lewis, J. F. Lewis, C. Falst.

Galveston, Texas.—The Gulf & Interstate Railway Co. is reported to have completed reconstruction from Beaumont as far as Rollover. J. W. Campbell is received at Galveston, Texas.

Greenville, S. C.—Joseph E. Sirrine will, it is reported, soon begin the survey for the proposed electric railway from Greenville to Anderson, in which Dr. Geo. E. Coughlin of Indianapolis, Ind., and others are interested. The Greenville Traction Co. will, according to report, also extend its line.

Houston, Texas.—It is reported that the Warren & Corsicana Pacific Railway, now seventeen miles long, will convert its gauge to standard and build an extension to Corsicana, Texas, about 150 miles. I. L. Campbell is vice-president and general manager at Houston.

Kansas City, Mo.—W. K. Palmer, chief engineer, writes the Manufacturers' Record concerning the Salem & Eastern Railway, stating that the road will be nearly 300 miles long from Poplar Bluffs, Mo., southwest through Doniphan, Salem, Mountain Home, Yellville, Harrison, Huntsville to Fayetteville, Ark. It will be constructed like a standard-gauge steam road, but will be operated by electricity. Permanent location has been made from Many Islands, on the 'Frisco between Mammoth Spring and Hardy to Salem, about thirty miles.

Little Rock, Ark.—J. W. McLeod, general attorney of the Choctaw, Oklahoma & Gulf Railroad, has resigned, according to report, and will, it is further reported, be interested with Philadelphia capitalists who formerly controlled the Choctaw in a new railroad plan in Arkansas.

Longview, Texas.—Regarding the possible extension of the Texas, Sabine Valley & Northwestern Railway and the Marshall, Timpson & Sabine Pass Railway from Timpson to San Augustine, Texas, Mr. C. L. Taylor, general freight agent of the company, informs the Manufacturers' Record that nothing definite has been decided. An engineer has been making surveys to estimate the cost of an extension, but has not located a line.

Louisville, Ky.—The Pascagoula Street Railway & Power Co. of Pascagoula, Miss., has decided to push the work of converting the steam railroad between Pascagoula, Vicksburg, East Side and Moss Point to an electric line. The following officers have been elected: Charles T. Ballard, president; L. S. Anderson, vice-president; G. Spratt Bridges, secretary; Columbia Finance & Trust Co., treasurer; Attila Cox, Jr., general counsel; directors, Attila Cox, Oscar Fenley, Charles T. Ballard, Samuel Culbertson, A. L. Anderson, J. W. Gaubert, J. Ross Todd, J. D. Stewart, Harry Weissinger, Volney Brown and H. S. Bourke.

Louisville, Ky.—The Louisville & Nashville Railroad Co. will, it is reported, build a branch three miles long in Blount county, Alabama, to the Lehigh Coal Co.'s property. R. Montfort is chief engineer at Louisville.

Louisville, Ky.—It is reported that a spur will be built from the Louisville & Nashville in Whitley county two miles to mines of the Van Jellie Coal Mining Co. R. Montfort is chief engineer at Louisville.

Memphis, Tenn.—Garvey Bros. & McGhee of Memphis are reported to have the grading contract for the Illinois Central yards immediately south of Memphis, where 600,000 cubic yards of earth will have to be moved.

Morgantown, W. Va.—It is reported that the Morgantown & Kingwood Railroad will be extended to connect with the Wabash. F. K. Bretz is general manager at Morgantown.

Mt. Sterling, Ky.—E. R. Carr, superintendent of the Morehead & West Liberty Railroad, is reported as saying that Baltimore capitalists have purchased the road and will complete it.

Nashville, Tenn.—It is reported that the Nashville, Chattanooga & St. Louis Railway will cut down the heavy grade at milepost 29 west of Nashville, the contract being awarded to the Southern Contracting Co. of Ludlow, Ky. The work is to be done by December 1. About 80,000 cubic yards of earth and 20,000 cubic yards of stone will have to be removed, and would be used to widen the embankment between White

Bluffs and Kingston Springs. Hunter McDonald is chief engineer.

Nashville, Tenn.—A track to connect the Tennessee Central Railroad with the Louisville & Nashville Railroad will be constructed south of Brown's Creek. It will be about 1000 feet long. R. E. Harwood is chief engineer of the Tennessee Construction Co.

Oklahoma City, O. T.—The Oklahoma & St. Louis Railway Co. will, it is reported, build a line from Oklahoma City northwest about 100 miles to a point on the Kansas City, Mexico & Orient Railway.

Parkersburg, W. Va.—A. M. Volz is reported to have a contract for construction on the Buckhannon & Northern (Wabash system). J. T. Blair is president at Parkersburg.

Shreveport, La.—The Shreveport & Red River Valley Railway, reported to have incorporated a new company named the Louisiana Railway & Navigation Co., capital \$12,000,000, to build from Shreveport via Baton Rouge to New Orleans, also to build to the Gulf of Mexico, and furthermore, to build northward from Shreveport along the western border of the State. Wm. Edenborn is president, and P. McIvried is general manager.

Sistersville, W. Va.—Grading has begun for the New Martinsville, Sistersville & Middlebourne Electric Railway between Sistersville and New Martinsville. The company will, it is reported, also start work from Sistersville to Middlebourne.

South McAlester, I. T.—It is reported that residents of South McAlester and also of Antlers, I. T., are interested in a plan to build a railroad from South McAlester via Clarksville, Texas, to Beaumont, Texas, under the name of the Red River Valley Railway.

St. Louis, Mo.—The Missouri Pacific's White River extension will, it is reported, be extended to Pittsburg, Kan. H. Rohrer is chief engineer at St. Louis.

St. Louis, Mo.—The Missouri, Kansas & Texas Railway will, it is reported, survey a line from Oklahoma City, Okla., to Seymour, Texas, 165 miles, and possibly from there to El Paso, Texas, 455 miles further. S. B. Fisher is chief engineer at St. Louis.

St. Louis, Mo.—The St. Louis, El Reno & Western Railroad, in which Edmund Whitaker, J. C. Van Riper, C. C. Nelson and L. C. Tume of St. Louis are reported interested, is said to be now planning to build between Guthrie and El Reno, Okla., and thence to Texas as an extension of the Missouri, Kansas & Texas Railway. J. E. Henderson is chief engineer at St. Louis.

Waycross, Ga.—The Atlantic & Birmingham Railroad is reported to have purchased 20 acres of land at St. Mary's, opposite Fernandina, Fla., for terminals; George Dale Wadley, vice president and general manager at Waycross.

Wichita Falls, Texas.—Reported that grading has begun on the Oklahoma & Texas Railway, a 'Frisco extension, between Cement, Okla., and Wichita Falls, 100 miles.

Winfield, La.—The Louisiana & Arkansas Railroad is reported to be building a line from a point near Sibley towards Shreveport, thirty miles. The engineers have reached a point near Bodeau, eight miles from Shreveport. G. Knobel is chief engineer at Winfield.

Washington, D. C.—The Southern Railway is reported to have completed a survey from Pioneer, Tenn., on the Knoxville & Ohio division, to Wingfield, on the Cincinnati, New Orleans & Texas Pacific, seventeen miles. W. H. Wells is engineer of construction at Washington.

Washington, D. C.—Concerning the report that the Southern Railway Co. contemplates building a line from Memphis, Tenn., to Webb, Miss., the Manufacturers' Record is officially informed that the report is probably incorrect.

Washington, D. C.—The report that ex-Senator Henry G. Davis is interested in a proposed coal road from Pittsburg via the West Virginia coal fields to the Atlantic seaboard is officially denied. The Manufacturers' Record is also officially informed that the Coal & Coke Railway, which is controlled by Senator Davis, is being extended from the Junior Coal Co.'s properties in the Roaring Creek district near Elkins, W. Va., southward to a junction with the Charleston, Clendenin & Sutton Railroad, which he owns and is extending northward. When completed this will give a through line of about 200 miles from Elkins to Charleston, W. Va. Senator Davis' office is at 1517 H street N. W., Washington, D. C.

Street Railways.

Louisville, Ky.—The Louisville Interurban Railway Co., controlled by the Louisville

Railway, has awarded the grading contract for its electric line to Valley Station. T. J. Minary is president.

Mobile, Ala.—The Mobile Light & Railroad Co. proposes to build an extension to Magnazine Point, two miles beyond the city limits. J. Howard Wilson is president.

New Martinsville, W. Va.—The New Martinsville & Proctor Street Railway Co. has applied for a franchise, as has the New Martinsville & Sistersville Street Railway Co.

Pensacola, Fla.—The Pensacola Electric Terminal Railway has been granted permission to build additional tracks.

Washington, D. C.—The Washington, Alexandria & Mt. Vernon Railway Co. has awarded a contract for building a loop in Alexandria to J. C. Weadon of Alexandria county, Virginia.

Washington, D. C.—The East Washington Heights Traction Co. proposes to build an electric railway over the Pennsylvania avenue bridge, southeast. Arthur E. Randle is president.

Machinery, Proposals and Supplies Wanted.

Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The MANUFACTURERS' RECORD has received during the week the following particulars as to machinery that is wanted.

Architects.—Architects are invited to submit designs to the Carnegie Library building committee, Union, S. C., June 5 for a \$10,000 library building. Address W. D. Arthur, secretary.

Beacons.—Sealed proposals will be received at office of lighthouse engineer, Mobile, Ala., until May 30 for furnishing materials and labor necessary for constructing and erecting beacons at East Pascagoula and East Pearl rivers, Mississippi, and at Punta Rasa, Fla., in accordance with plans and specifications, copies of which, with blank proposals and other information, may be had on application to Capt. William E. Craighill, U. S. A., engineer, seventh and eighth lighthouse district.

Blackboards.—W. B. Silliman, Caldwell, Texas, wants prices on all kinds of blackboards.

Boiler and Engine.—Sparta Steamboat Co., Sparta, Tenn., needs eight horse-power boiler and engine.

Boiler and Engine.—Rawl Coal & Coke Co., Bluefield, W. Va., wants 30-horse-power engine and boiler for air-compressed machines.

Boiler and Engine.—Clarendon Button Co., Clarendon, Ark., needs 20-horse-power boiler and 20-horse-power engine.

Boiler and Engine.—Yellow Pine Manufacturing Co., Kinston, N. C., wants 40 or 50-horse-power return tubular boiler and 30 or 35-horse-power engine; second-hand preferred.

Boiler and Engine.—See "Electric Plant." Rollers.—Elliott Woods, superintendent United States Capitol building and grounds, Department of Interior, Washington, D. C., will open bids May 23 for water-tube steam boilers for Senate wing. Specifications, schedules, etc., on application. Usual rights reserved.

Rollers and Engines.—See "Electric Light and Power Plant."

Rollers and Engines.—See "Mill Supplies and Machinery."

Brick Machinery.—See "Mill Supplies and Machinery."

Bridge.—John C. Stanfield, supervisor of Washington county, Holston, Va., will receive bids, plans and specifications until June 30 for steel bridge 220 feet long across Potomac river. Contract to be let at Abingdon, Va. Usual rights reserved.

Building Material.—See "Mill Supplies and Machinery."

Building Material.—J. W. McGhee, 300 Jefferson street, Lexington, Ky., wants some iron beams and trusses and bill of hardware.

Building Material.—John R. Smith, Mt. Olive, N. C., will need building material.

Building Materials.—Standard Pole & Tie Co., 41 Broad street, New York, N. Y., is in market for carload of shingles.

Buildings Materials.—See "Woodworking Machinery."

Building Materials.—Price Finpless, Southport, N. C., wants to correspond with manufacturers of prison cells, also iron beams and corrugated curved sheets to hold up concrete floors.

Candy Machinery.—See "Syrup Mill, etc."

Cannery Machinery.—R. C. Clark, Bushnell, Fla., wants information and prices on cannery machinery.

Canning Outfit.—See "Syrup Mill, etc."

Cement Machinery.—Kentucky-Indiana Construction Co., L. T. Bradford, secretary, Louisville, Ky., will want Portland cement machinery.

Cotton Gin.—Heth Plantation Co., Forrest City, Ark., will later on need cotton gin.

Cotton Mill.—Bloomfield Manufacturing Co., care of A. B. Saunders, Stateville, N. C., will buy equipment for 5000-spindle fine- yarn mill.

Electrical Equipment.—See "Syrup Mill, etc."

Electric-light and Power Plant.—Building committee of Capital Light & Power Co. will open bids May 25 in office of Kirkpatrick & Johnson, engineers, Jackson, Miss., for boilers, engines, dynamos, wire and supplies for new electric-light and power plant.

Electric-light Plant.—Minuss & Magnus, Newark, Ark., will want 60-light plant.

Electric-light Plant.—Douglas Ice & Power Co., Douglas, Ga., will need complete equipment for operating electric plant of 18 arc and 500 incandescent lights.

Electric-light Plant.—Kentucky-Indiana Construction Co., L. T. Bradford, secretary, Louisville, Ky., may be in market to buy electric-light machinery, water-works machinery, etc.

Electric Plant.—Halls Canning Co., Halls, Tenn., wants electric plant, boiler and engine.

Electric-power Plant.—Clarke & Courts, Galveston, Texas, want information regarding installation of full electrical equipment for power and lights.

Elevator.—See "Heating Plant."

Engine.—Chickamanga Cement Co., Chattanooga, Tenn., wants prices on 300-horse-power engine.

Engines.—See "Mining Equipment."

Extract Machinery.—T. S. Williamson & Co., Danville, Va., wants information in regard to the method and class of machinery used in making bark extracts such as are used for tanning purposes, wallpaper coloring, etc.

Flour-mill Machinery.—C. S. May, Swanton, Md., will later on need roller-mill outfit.

Foundry Machinery.—Withers Foundry and Machine Works, 367 Windsor street, Atlanta, Ga., wants grinding and finishing machinery for sadirons.

Furniture Machinery.—See "Woodworking Machinery."

Glass-bottle Manufacturers.—G. E. Pitcher, P. O. Box 317, New Orleans, La., wants to correspond with manufacturers of glass bottles.

Glass-factory Machinery.—G. E. Pitcher, P. O. Box 317, New Orleans, La., wants to correspond with manufacturers of machinery for making glass bottles.

Hardware.—See "Building Material."

Heating Apparatus.—James Knox Taylor, supervising architect, Treasury Department, Washington, D. C., will open bids June 9 for furnishing steam-heating and ventilating apparatus complete in place for United States postoffice and courthouse, etc., at Paducah, Ky., in accordance with drawings and specifications, copies of which may be had at above office or office of superintendent at Paducah.

Heating, etc.—Bids are wanted for lighting, heating and sewerage new buildings at St. John's College, Annapolis, Md.

Heating Plant.—Presbyterian committee of publication, Richmond, Va., wants electric elevator and steam-heating plant.

Horseshoe Machinery.—See "Rolling-mill Machinery."

Hydraulic Stone.—See "Stone Works."

Ice-factory Equipment.—Springdale Ice Co., Parkersburg, W. Va., wants electric crane for hoisting plate ice, small air compressor, low tension work, and rotary pumps.

Ice Machinery.—Crystal Water & Power Co., Spencer, W. Va., will need ice plant complete.

Lighthouse.—Proposals will be opened June 4 at office of lighthouse engineer, fifth district, Postoffice building, Baltimore, Md., for furnishing materials (except metal work) and labor necessary for construction and delivery of the Baltimore lighthouse, Maryland, in

accordance with specifications and drawings, copies of which, with blank proposals and other information, may be had upon application to Col. W. A. Jones, U. S. A., engineer.

Lighting.—See "Heating."

Lighting Equipment.—See "Mining Equipment."

Machine Tool.—Bamberg Iron Works, Bamberg, S. C., wants 24x24-inch by five-foot second-hand iron planer.

Machine Tools.—Southern Foundry Co., Owensboro, Ky., wants power punch to punch up to one-half-inch holes in one-quarter-inch stuff, splitting shear, capacity one-half-inch plates, cut-off saw and rip saw.

Mattress Machinery.—L. C. Quinn & Son, Crisfield, Md., wants names of manufacturers of mattress-making machinery.

Mill Supplies.—See "Woodworking Machinery."

Mill Supplies and Machinery.—Schwarz System Brick Co., 8-10 Bridge street, New York, N. Y., is in market for thirty 125-horse-power boilers, twenty-five 100-horse-power engines, electric motors, new and second hand; shafting, belting, pulley supports, etc., elevating and conveying machinery, vacuum pumps, automatic weighing and measuring devices, crushers and pulverizers for lime, dump cars, wheelbarrows, brick tray cars, ralls, transfer cars, turntables, etc., hardening cylinders for brick, hand-power traveling cranes, pipe covering, roofing material, etc.

Mining Equipment.—Bluegrass Gold & Copper Mining Co., Georgetown, Ky., will need machinery of all kinds connected with mining, milling, smelting, lighting, etc.

Mining Equipment.—Aurora Placer Mining Co., Little Rock, Ark., will need gasoline engines, conveyors and traction steam shovels.

Oil-mill Equipment.—Oxford Oil Mill Co., Oxford, Miss., will need tanks, liners, gear and cleaning machinery.

Paints, etc.—W. B. Stillman, Caldwell, Texas, wants prices on paints, oil, varnishes, etc.

Paper-cutters.—A. G. Elliot Paper Co., Dallas, Texas, will be in market for two 48-inch paper-cutters.

Pews.—M. W. C. Beacham, Charlotte, N. C., wants pews for church.

Piping.—Frank W. Nichols, Thibodaux, La., is in market for brass pipe and fittings for sugar-house.

Piping.—Hotel Dalton Co., Dalton, Ga., will need piping for one mile of sewerage.

Piping.—Board of water and light commissioners, Harriman, Tenn., will open bids May 26 for furnishing and laying 2800 feet of 10-inch cast-iron water pipe and 240 feet of eight-inch cast-iron water pipe, taking up and relaying 485 feet of eight-inch cast-iron water pipe, taking up 750 feet of four-inch cast-iron water pipe, furnishing and laying 1000 feet 10-inch spiral riveted steel pipe, building one 300,000-gallon concrete-lined reservoir. Each proposal must be accompanied by certified check for \$500. Plans and specifications at offices of F. J. Manley, city engineer, Harriman, and of Collier & Brown, consulting engineers, Atlanta, Ga. Copies of plans may be obtained by sending deposit of \$10 to engineers. Usual rights reserved.

Printing-plant Equipment.—Bluefield Printing & Manufacturing Co., Bluefield, W. Va., wants two-revolution cylinder press, book-binding ruling machine, five to eight-horse-power engine, embossing press, rubber stamp and seal outfit.

Prison Cells.—See "Building Materials."

Pulleys.—J. W. McGhee, 300 Jefferson street, Lexington, Ky., wants machinery for running a sliding partition between Sunday-school room and auditorium.

Pump.—See "Woodworking Machinery."

Railroad Spikes.—See "Rolling-mill Machinery."

Railway Equipment.—See "Mill Supplies and Machinery."

River Improvement.—H. M. Adams, lieutenant-colonel, engineers, United States engineer office, custom-house, New Orleans, La., will open bids June 30 for improving Southwest Pass of Mississippi river. Information furnished on application.

Roofing.—See "Woodworking Machinery."

Roofing.—R. P. Johnson, Wytheville, Va., wants prices on roofing.

Rolling-mill Machinery.—Empire Plow Co., Cleveland, Ohio, wants machinery to manufacture railroad spikes, traction spikes and horseshoes.

Saw-mill.—C. S. May, Swanton, Md., will need saw-mill outfit.

Saws.—See "Machine Tools."

Seats.—W. B. Stillman, Caldwell, Texas, wants prices on seats for school building.

Sewering.—See "Heating."

Sprinklers.—See "Woodworking Machinery."

Steam Shovel.—Baker, Stillwell & Hart, Birmingham, Ala., want prices and description of second-hand steam shovel.

Stone Works.—Memphis Hydraulic Stone Co., 384 Second street, Memphis, Tenn., will require mixers, cement testers and other necessary machinery for manufacture of hydraulic stone.

Sugar-house Equipment.—See "Piping."

Syrup Mill, etc.—Southern Ice & Cold Storage Co., care of E. D. Ansley, manager, Americus, Ga., will want electric motor, pumps and dynamo, vats for reboiling syrup, canning outfit and sundry attachments, candy-making machines, such as vacuum pans, etc.

Water-works.—See "Electric-light Plant."

Water-works.—E. J. Browne, clerk and treasurer, Manning, S. C., desires correspondence with parties relative to contracting for system of water-works for the town.

Water-works.—Crystal Water & Power Co., Spencer, W. Va., will need boiler, engine, pumps and two, three, four and six-inch pipe for water-works.

Well-drilling.—City of Holly Springs, Miss., is in market for drilling one-eighth-inch artesian well. Address Holly Springs Water-Works.

Woodworking Machinery.—Warlick & Whisnant, Granite Falls, N. C., want to correspond with makers of machinery for manufacturing shuttles.

Woodworking Machinery.—Southern Mantel & Grate Co., Newport News, Va., wants to correspond with manufacturers of woodworking machinery, principally machinery for manufacture of furniture.

Woodworking Machinery.—Oak Lumber Co., Gibsonville, N. C., wants sash, door and blind machinery, rip saw, shaper, etc.

Woodworking Machinery.—Westend Veneering Co., Westend, N. C., wants descriptive prices, etc., of planer, saws, etc., for making cigar-box material.

Woodworking Machinery.—J. H. Walsh, general manager Kinard Lumber Co., Junction City, Ark., wants trimmer, supplies, such as belting, roofing, saw gummers, pump, etc.

Woodworking Machinery.—Weems-Lockwood Furniture Co., Greenwood, Miss., is in market for all material needed for erection of four-story brick mill construction building; also brick dry-kiln, oilhouse, stables, etc.; full equipment of woodworking machinery for furniture factory, including automatic sprunklers, exhaust pipes, etc.

Woodworking Machinery.—Fayetteville Woodenware Co., Fayetteville, N. C., wants to correspond with makers of machinery for manufacturing all kinds of wooden crates, veneer barrels, etc.

Woodworking Machinery.—International Hardwood Co., Calera, Ala., wants to buy a machine for turning bobbin heads and cones for cotton mills.

TRADE NOTES.

Lumber-Plant Interest.—An established Virginia plant is prepared to dispose of a half-interest to an energetic man ready to invest at least \$5000. Boxes and general lumber constitute the plant's product. For information address "Confidential," care of Manufacturers' Record.

Plansifter Mill Offered.—An unfortunate accident to the owner results in the offering of an established plansifter mill for sale. This plant is located in Missouri, is transacting a good business, and has lately been refitted with modern equipment. C. H. Otis, Skidmore, Mo., can give information.

Peters' Ideal Shells.—At the two days' shooting tournament at Attica, Ind., C. B. Wiggins made the high average of 95 per cent. He used Peters' Ideal Shells, loaded with Dupont powder. These shells are manufactured by the Peters Cartridge Co.; offices at 80 Chambers street, New York; plant at Cincinnati, Ohio.

Messrs. John Johnson & Co.—These well-known manufacturers of the Johnson Filter Presses for sugar-houses, cottonseed-oil mills and other work, announce a change in their address. The new offices are at No. 1 Franklin Square, New York city, formerly occupied by the firm for twenty-two years. Messrs. Johnson & Co. have had twenty-five years' experience in their special field.

Fine Granite Quarry.—A dark blue granite that takes a high polish and is suitable for high-class monumental and building work is the product of a quarry that is now offered for sale. The property is located on two

railroads, and has water transportation facilities for reaching Baltimore, Philadelphia, Washington and Richmond. Alfred S. Emerson, Murphy, N. C., can give information.

Nurnberg Gas Engine.—The Allis-Chalmers Company, Home Insurance Building, Chicago, has closed a contract for the exclusive right to manufacture and sell the Nurnberg Gas Engine. This engine has achieved great success in Europe, and in adding it to its line of manufacture the Allis-Chalmers Company will maintain the high standard of excellence for which its product has been noted for twenty-five years.

Roller Mills Offered.—An opportunity is offered to buyers of roller mills. The equipments include a Blymyer three-roller mill 4 feet 6 inches by 29 inches, journals 12x11½ inches, complete with engine, and one Leeds three-roller mill 4 feet 7 inches by 29 inches, journals 12x9½ inches, complete with engine. These mills have compound gear, 14-inch face, 10-inch journals, and can be geared together. Address Estate H. C. Minor for particulars.

Cotton-Mill Investment.—Investors desirous of being interested in a Southern cotton-mill enterprise are invited to address "Water Power," care Manufacturers' Record. The proposition of the advertiser includes the development of a water-power and the erection of a modern mill. A large amount of local capital has already been subscribed. The power and site can be obtained at a low figure. All the needed facilities in the way of labor and transportation are at hand.

Otis Elevator Co.—This well-known builder of elevators finds the demand for increased facilities so urgent that it will move at once to the Whitehall Building, facing Battery Park, New York city. That a company possessing about 12,000 square feet of floor space for its executive and sales offices in a modern building should abandon an unexpired lease is an encouraging prospect, since the status of the elevator industry is indicative of the condition of affairs in the building trades and in business generally.

Manufacturing Enterprises Invited.—Progressive communities having manufacturing advantages do not wait for enterprises to come their way. They invite and assist in the establishment of bona fide plants. Blacksburg, S. C., is a progressive town, with unsurpassed natural facilities, best railroad facilities, telegraph and telephone accommodations. Free sites and exemption from municipal taxes for a term of years can be secured at Blacksburg. Manufacturers desirous of knowing further particulars are invited to correspond with Blacksburg Business Men's League; P. R. Freeman, secretary.

A Manufacturing Opportunity.—It will occur at times that a manufacturing plant with modern facilities is available to purchasers. An opportunity of this character is seen in the cotton belt. The property includes modern brick buildings (slow-burning mill construction), boilers, engine, electric-lighting equipment, etc. It is especially adapted for yarn and knit-goods production, but any other class of production can be arranged for. Local investors will take \$10,000 worth of stock in any company that is organized. Interested parties can obtain further facts by addressing the Gulf Red Cedar Co., Richmond, Va.

Harris Smoke-Burning Furnace.—The absolute combustion of coal is aimed at in the use of the fuel named. Among the methods introduced to attain this end is that known as Dr. J. P. Harris' System of absolute combustion of coal in steam furnaces, locomotives, heating and cooking stoves and grates. Dr. Harris has made practical tests of his devices, and claims to have reached satisfactory conclusions. Patents are pending on the system, and he expects in the near future to complete arrangements so that it can be introduced throughout the United States. Dr. Harris has offices in the Vendome Building, Nashville, Tenn., where he can be addressed for particulars.

Seymour Fans.—The Power Specialty Co., 125 Liberty street, New York, has furnished sixteen 10-foot Seymour fans for the cooling towers at the St. Louis Exposition through Westinghouse, Church, Kerr & Co. The combined delivery of these fans is over 2,000,000 cubic feet of air per minute, requiring less than twenty horse-power each to drive them. The Power Specialty Co. furnishes all the fans for the cooling towers of Henry R. Worthington, and also the Alberger Condenser Co. The company says this is because the Seymour fan has been proven by accurate mechanical tests to be the most efficient means for moving large volumes of

air at moderate pressures, up to two or three inches water column, on such work as cooling towers, ventilating, mechanical draft and mine ventilation.

Slow-Motion Automatic Force Feeders.—These successful devices appeal to the progressive operator of cereal mills. The McAnulty Slow-Motion Automatic Force Feeders are giving such satisfaction that the demand for them is large and increasing. Many large and important mills throughout the country have adopted them. Recent buyers of the McAnulty feeders included B. F. Gump & Co. of Chicago, who ordered 27; Straub Machinery Co., Cincinnati, ordered 3; Norrish-Burnham Company, Glen Rock, Pa., ordered 4; Rock Hill Roller Mills, Rock Hill, S. C., ordered 4; Mann & Allshouse, Easton, Pa., ordered 2. Many other sales, too numerous to mention, were also completed by the manufacturers, Messrs. Sprout, Waldron & Co., builders of flour-mill machinery, Muncy, Pa.

Steam Turbines.—The 2800-horse-power steam turbine plant of Hartford (Conn.) Electric Light Co. is soon to be duplicated by machines built by the contractors for the original installation, the Westinghouse Machine Co. of Pittsburg, Pa. This was the first American plant where steam turbine units of large size were installed, and their success was complete. In its application to the generation of electrical power the Westinghouse steam turbine is undoubtedly making marked progress, and in many instances is displacing the reciprocating steam engine for this class of work. As an evidence of this and the energy with which the manufacture of these machines is being taken up, it may be interesting to state that the aggregate power of steam turbine sets completed, in hand and in order to the Westinghouse Machine Co., does not fall far short of 20,000 kilowatts.

Nernst Lamps for Circus.—Ringling Bros. will use Nernst lamps to illuminate their circus, which recently opened the season at Terre Haute. In order to provide the proper current for running the Nernst lamps, the Ringling Brothers had to sacrifice three D. C. machines which had been made for them according to special design, construction and weight, and intended to be used for running D. C. enclosed are lamps. After seeing the Nernst lamp they decided to cancel all orders for direct-current apparatus, and have installed instead three alternating-current 220-volt machines, the lamps being hurried forward by express in order to be in time for the opening performance. The Nernst lamps admit of most beautiful illumination with artistic effects, and the soft white light is especially desirable for bringing out the proper shades of the gay colors which flash through the circus pavilions.

Dixie Manufacturing Co.—This company is known throughout the South for its success as mechanical expert in the removal of shavings, dust, lint and odors. It manufactures and deals in the necessary equipments for accomplishing the results referred to, its product including exhaust fans, exhaust and blow piping, automatic furnace feeders, dust collectors, etc. For some time the company has been located at Greensboro, N. C., but finding its increased trade demanding more and better facilities, has removed to Baltimore, Md.; headquarters at 401 North street. This new establishment will afford the Dixie Manufacturing Co. the larger office, warehouse and manufacturing accommodations necessitated by its increasing operations. Industrial operators who want to install the best possible devices for removing shavings, dust, lint, odors, etc., are invited to send for particulars of the Dixie Company's special equipments.

Sand and Lime Bricks by Huennekens System.—Manufacturing building bricks from sand and lime by the Huennekens system has met with immediate success in this country. Although an innovation, it is demanding attention from progressive brickmakers and from builders, contractors, construction companies and other operators requiring strong and durable building bricks in their special work. The low cost of the sand and lime bricks and the ease of obtaining the material for their manufacture are the prime factors in creating the demand for the plants. Messrs. H. Huennekens & Co. of 114-118 Liberty street, New York, control the Huennekens system, and they refer to a number of their plants in successful operation in the United States, while additional plants are being built and more are being contracted for. Investigation of the Huennekens system for making sand and lime bricks is invited, and Messrs. Huennekens & Co. are prepared to give full details and state where the various plants using their system can be seen in operation.

Staying Qualities of Wire Rope.—One of the best-known manufacturers of wire rope for a multitude of industrial purposes is the Broderick & Bascom Rope Co., 895 N. Main street, St. Louis, Mo. Its wire ropes are as flexible as hemp ropes of equal strength. They weigh less, and are claimed to be far more efficient and durable. This durability is indicated in a communication which will interest users of wire rope. The Greenfield (Ill.) Coal & Mining Co. writes: "Our one-inch 19-wire power rope is giving excellent satisfaction. On December 16 one of our sheaves and shaft broke and dropped a cage loaded with one car of coal (weighing about 3500 pounds) ten or twelve feet. The rope remained intact and saved the cage from going to the bottom if safety catches had failed to hold. We can cheerfully recommend your power steel rope."

Southern Electric Installations.—Southern progress calls for a great quantity of electrical equipment, machines and supplies. In meeting this demand many important manufacturing and installing companies are engaged. The Standard Electric Co. is prominent among them. Its main office is at Norfolk, Va., with branches at Charlotte, N. C., and Atlanta, Ga. The Standard Electric Co. has lately secured some important contracts, including electrical installation for three cotton mills being built in South Carolina, one in North Carolina, municipal plants at Pell City, Ala.; Conyers, Ga., and Vienna, Ga., and an extension to railway at Greensboro, N. C. Another very important contract is that which the Dan River Power & Manufacturing Co. of Danville, Va., has let to the Standard Company. It calls for the conversion of 3000 horse-power, one of the largest installations ever awarded in the South.

Manufacturing Sand-Lime Bricks.—Reference was made last week to the subject of manufacturing sand-lime bricks. This new departure in brick manufacture is attracting much attention in this country. In introducing the Schwarz system of making calcareous sandstones for building purposes, the Schwarz System Brick Co. of 810 Bridge street, New York, is meeting with much success. This company, although established in the United States only a few months ago, has a number of its system of brick plants under construction. It is now inviting prices on boilers, engines, electric motors, belting, shafting and other machinery and equipment to be used in building brick plants to be located, the company states, in several Southern States. There are at present no Schwarz system plants in operation in America, and our last week's statement that a number are in operation here was erroneous. However, a number of them are being conducted successfully throughout Europe, and in due course those now being built in this country will begin producing bricks.

Electric-Lighting Plants.—The installation of electric-lighting plants is, and has been for some years, one of the most active branches of activity. Not only do municipalities contract for them, but in our day almost every industrial plant of any considerable size has its own equipment for electrically lighting its establishment. Southern operators—many located in sections where the local governments have no plant—are especially prominent in demanding these equipments. The Ewing-Merkle Electric Co. of St. Louis, Mo., and Shreveport, La., has been building many of these plants for the owners, and is constantly filling new and large contracts. During the past week the company sold seven plants—a 400-light plant at Hodge, La.; 600 lights at Voth, Texas; 800 lights at Eagle Mills, Ark.; 600 lights at Saron, Texas; 100 lights at Chidester, Texas—all for lumber manufacturers; 100 lights for club at Shreveport, La., and 1200 lights at Cerro Gordo, Ill. The Ewing-Merkle Electric Co. is general selling agent for the Commercial Apparatus, a product that has been on the market for the past twelve years and been in great demand during that time.

Telpherage.—Telpherage is the application of electricity to the handling of material (not passengers). It has been introduced with such success that the demand for the necessary equipment is now extensive, and is daily growing more pronounced. Manufacturers, railway and steamship companies, contractors and various other operators in the industrial and general business avenues of activity find the telpherage systems promoting the efficient and economical handling of materials, freight, etc. With telpherage, electricity does all the work—the lifting, conveying, depositing—man does the directing. The electric hoist raises and lowers; the telpher conveys. The amount and shape of the material presents no difficulty which telpherage will not overcome. High speeds are obtained with small horse-power, and the operator can

either go with the telpher or run it automatically. The United Telpherage Co., 20 Broad street, New York, manufactures and installs telpherage systems of its own design which have met the requirements of many of the most exacting conditions and materials to be handled. It is prepared to furnish all desired particulars regarding its devices, and invites correspondence from interested parties.

A Successful Enterprise.—One of numerous branches of manufacture is that for paints, roofing and similar articles. There is a great demand for these products, and has been for some years, and one of the most prominent companies supplying that demand is the Standard Paint Co., 100 William street, New York. The celebrated P. & B. products and the well-known Ruberoid Roofing, used all over the world, are made by this company and sold through its offices in Chicago, Cincinnati, Boston, London, Paris, Berlin, Hamburg and Sydney. On April 22 the Standard Paint Co. tendered to its employees a "house warming" in celebration of the completion of its new plant at Bound Brook, N. J. The employees with their friends and relatives present numbered about 600. A delightful evening was the result, dancing and refreshments being indulged in to satiety. The new plant doubles the previous capacity for Standard product, and has been built simply because of the ever-increasing demand for those goods. For five years the company was behind its orders, and the demand of the last two years made it absolutely necessary that the output be doubled. The Standard Paint Co. organized in 1886, and claims to have been the first to place upon the market an odorless waterproof insulating paper and a liquid insulating compound which could be applied without heat. This latter filled a long-felt want in the electrical field. The company's relations with its employees are especially satisfactory, and loyalty to the company's interests is fully recognized in a material way. The employees have a benefit association for the sick and disabled, to which the company contributes each year an amount equal to the total contributed by the men. A number of the employees are stockholders in the company.

TRADE LITERATURE.

The Wisdom Calendar.—Though rather belated in its coming, the Wisdom Calendar was worth waiting for. Its common sense wisdom, presented for each day in the coming year up to next May, contains much important advice. This advice has been culled from the now celebrated "Letters From a Self-Made Merchant to His Son." These letters contain practical, although homely, wisdom, and many extracts from them are rapidly becoming proverbs among people of our day. The Pratt & Whitney Company, Hartford, Conn., manufacturer of machinery and tools of the highest grade, issues the Wisdom Calendar.

Pile-Driving Machinery.—Contractors, managers of railroads, engineers of public works and others interested in pile-driving machinery will find it to their advantage to examine the catalogue of equipment of that character issued by the Vulcan Iron Works, 59 Milwaukee avenue, Chicago. This company has been constructing pile-driving machinery for thirty years, and from its success feels justified in claiming the highest efficiency and durability for its equipment. The Vulcan catalogue No. 23 gives full particulars concerning pile-driving machinery and the different supplies, hoisting engines, car pile-drivers and other apparatus in the fields of activity requiring such equipments.

Messrs. O. J. Gorman & Co.—Progress in communities is marked by the demand for water and sewerage systems, electric-light plants, ice factories, steam-heating installations and other equipments that have been brought to a high degree of perfection by American engineers. In the South's remarkable growth established cities, towns, hamlets and other communities have progressed and new ones have come into existence, thus demanding the installations referred to. Messrs. O. J. Gorman & Co., Juanita Building, Dallas, Texas, have been especially successful in constructing these plants during the past sixteen years. They issue a booklet telling about the growth of their business, and it is interesting to all who may want to build or will be connected with the construction of the character of plants noted. Send for a copy.

Engine and Boiler Supplies.—In building boilers and engines there are many important supplies and attachments required. Such supplies include injectors and ejectors, oil cups and other oil devices, pumps, flue scrapers and blowers, boiler gauges, pressure gauges, pop valves and various others.

The Sherwood Manufacturing Co., 34 Washington street, Buffalo, N. Y., makes a specialty of these devices, and its product is used by many leading manufacturers of boilers and engines in America and in other countries. Special devices and other goods to meet special requirements are also made. The company's latest catalogue illustrates and describes the various Sherwood products. The company also makes a specialty of fine brass work for engine-rooms, fine brass and bronze castings, nickel-plating and special brass work, etc.

Mining Explosives.—In modern mining a great quantity of explosives is used. There is much literature current regarding them, but for the most part it is of scientific and manufacturing interest. The mining phase of the explosives question is one that merits thoughtful and practical treatment, and this is given in "Mining Explosives," a treatise prepared by A. W. Warwick for "Mines and Minerals." The subject is treated in a thorough manner, and valuable information is presented, the effect of perfect and imperfect detonation, proper strength of caps for different conditions and other interesting data being presented in a handy form. This treatise is reproduced in a vestpocket booklet by the Repauno Chemical Co. of Wilmington, Del., manufacturer of the celebrated Repauno Caps of all strengths, and of reliable exploders of single and double strength.

Concerning Good Tin Roofs.—Longevity in an article of commerce means something. What it means in roofing tin is evident. When a brand of roofing tin has been manufactured for ninety-three successive years there must be something about that tin which makes it desirable. A pocket booklet entitled "The Arrow" will in future appear each month, devoted to a tin roofing that has been used in large quantities for the period referred to. An arrow is the brand of this tin, hence the title, and the publication will present regularly practical information and facts concerning roofing, especially with reference to "Taylor Old-Style" roofing tin. This product has thousands of friends among architects, builders, contractors, tin roofers and others in a position to recognize great merit in product of this character. The N. & G. Taylor Company, Philadelphia, Pa., manufactures this tin and issues "The Arrow." Send for a copy.

Modern Amusement Equipments.—Although riding galleries have been operated in many cities and villages of the United States, yet they have only been introduced into a very limited portion of the territory where they might be profitably operated. There are multitudes of hamlets, villages and small cities, especially in the South and West, where but few amusements are available to the people and where the modern riding gallery would be well received. The Herschell-Spillman Company, 162 Sweeney street, North Tonawanda, N. Y., is a specialist in designing and constructing these galleries, and its latest modern equipment combines all the requirements for giving satisfaction to the public and for affording large profits to the owner. The company named carries in stock a full line of amusement outfits or manufactures to order. Correspondence regarding the improved riding gallery is invited. An illustrated folder is now ready.

Traveling Electric Hoists.—These types of machinery are in extensive use nowadays by contractors, builders, designers and constructors and various other operators in the industrial field. These machines possess advantages in the matter of economical installation and great range of usefulness that are constantly resulting in an increased demand for them. Messrs. Pawling & Harnischfeger of Milwaukee, Wis., are specialists in designing and building cranes and hoists. Their bulletin No. 13 presents interesting data, illustrated, concerning the types of traveling electric hoists they have sold recently. The application of these hoisting devices is practically unlimited. They are now being used for loading and unloading freight, carrying ladies for castings, carrying coal, disposing of cinders and ashes, transferring cotton bales, etc. Special types are built for special requirements. The entire equipment is built by Pawling & Harnischfeger.

Electricity Meters.—Electrical supplies include that most important product, the meter. The design and manufacture of electricity meters is the especial work of the Duncan Electric Manufacturing Co. of Lafayette, Ind. This company issues an illustrated pamphlet giving full details regarding its devices. The Duncan Integrating Wattmeter for direct current lighting and power service is of an entirely new design, and embodies many of the most modern ideas pecu-

liar to its type. For simplicity of design, excellence of construction and accuracy of measurement it is recommended by many users. No expense has been spared in making this meter strictly up to date, both electrically and mechanically. The Electrical Material Co. of Baltimore, Md., which is well known throughout the South, is general sales representative for the Duncan meters, and is prepared to give further particulars and quote prices to dealers and users in its territory.

Your Painting Bills Made Smaller.—Manufacturers and mill-owners who systematically paint or whitewash their buildings in order to keep them in good condition are presumably ready to become acquainted with the means of making their painting bills smaller. An illustrated vestpocket booklet has been issued relative to this question, and its title is "Your Painting Bills Made Smaller." It refers to the cost of painting in general, and to the economies effected by the use of the "Best" Pneumatic Coating Machine in particular, combined preferably with Hook's "Stay-ther" paint. The latter is one of the best filling paints and wood preservers yet devised. Among users are Standard Oil Co., American Cotton Oil Co., Armour Packing Co., American Express Co., Fairbanks Company, United States Steel Corporation, New York Central Railroad and others. F. E. Hook of Hudson, Mich., manufactures the aforesaid machines and paint. Ask him for the booklet.

Modern Steel Lockers.—Employers are fast finding out the advantage of making their employees comfortable. Their thought is: "Let us both be a trifle generous now, not wait till we get to be perfect." One of the first things to do is to provide a clean, airy place to lock up the clothes employees take off for your work. Modern steel lockers provide this place, and Messrs. Merritt & Co., Noble street and Ridge avenue, Philadelphia, manufacture them. They have perfected these lockers, and offer several kinds for different works and uses; in fact, they offer whatever kind you want. An illustrated leaflet gives brief details concerning these lockers and names among present users the most prominent engineering works, machine builders, electric and steam railways, electric plants, hotels, banks, clubs, gymnasiums and other establishments in the United States. This locker subject is one that is particularly worth the investigation of employers, especially in connection with the Merritt lockers.

Feed and Meal Mills.—An experience covering about forty years in the manufacture of feed and meal mills and various other equipments of machinery has enabled Messrs. Sprout, Waldron & Co. of Muncy, Pa., to build up a reputation for their product that is not excelled in their special field. Their machines have been carefully tested by large milling concerns, as well as by the individual miller and farmer, and have proved to be practical, durable and economical. The designs are the best that long experience has dictated. Every detail part is made as carefully as is possible by the best workmen with the best material. Messrs. Sprout, Waldron & Co. have issued a catalogue, which they invite every miller to send for. The book tells all about the factory and the good machines built. The general contents include French burr and attrition feed and meal mills, cottonseed and linseed oil-cake mills, emery rock mills for grinding paint rock, coke, foundry facings, limestone, graphite, etc., corn ear and ore crushers, corn shellers and cornmeal sieves, magnetic separators, pulleys, shafting, sprocket, belting, couplings, etc.

A Guide to Modern Mexico.—During recent years there has been increased interest shown by all classes of men in Mexico. The land of the Moctezumas has progressed wonderfully, and under the progressive administration of that wonderful statesman, Porfirio Diaz, President of the United States of Mexico, American and European capital is largely invested in the republic, and a sense of security for both property and personal rights is now assured. Tourists who contemplate visiting our sister republic should not fail to secure a copy of Modern Mexico's Standard Guide to the City of Mexico and vicinity. This publication is handsomely illustrated, and has been written for the purpose of providing tourists with such practical information and intelligent description as may add to the pleasure and convenience of their trip, while those who may not be so fortunate as to visit the country can become acquainted with its beauties. Many of the ancient characteristics and customs of Mexico are retained in our day; the very air is poetic and dreamy with age. The book referred to is published by Modern Mexico of 2a Independencia No. 8, City of Mexico, and

116 Nassau street, New York city. Its price is \$1.50.

Griswold's Subpress Dies.—The subpress is made for the purpose of holding the punches and dies in perfect alignment, and to avoid injuring or shearing the punches while setting them in the power press. Subpress dies are made on an entirely different principle from the old blanking dies, and they make a complete blank with all of the holes, letters, monograms, figures or whatever is ordered stamped into it by one stroke of the press. The stock is clamped firmly while the blank is being cut, so that every piece must be perfect and exactly like its original. The subpress die is always ready, and only requires to be placed in the power press. It does away entirely with the trouble of entering delicate punches so often spoiled by the old way of cutting them. Further details can be obtained by addressing the manufacturer, George M. Griswold, at New Haven, Conn. He publishes an illustrated booklet entitled "Power of the Press," which gives full information regarding these devices. Mr. Griswold also builds machines for the manufacture of folding and other paper boxes, special cigarette machines with per minute capacity of 400, tools, models, etc. Machines which cannot be readily found in the open market because of size, shape and other details, and, in fact, automatic machines of any kind, are built by Mr. Griswold.

Millett Core Ovens.—All founders and those others who use core ovens should not fail to acquaint themselves with the latest and best improvements in equipment of this character. The desire to do more and better work at greater convenience and the stress of modern competition all combine to prompt progressive founders to be on the "qui vive" for betterments in their apparatus. The Millett Core Oven is now giving satisfaction to many of the most prominent users of core ovens. Over 1000 of these ovens are now in use. They bake without breaking. Their use abolishes the pushing in and pulling out of core pans. Small and delicate cores are just placed on the hinged shelves of the Millett and then swing in and out without a jar. The recommendations that users give these Millett Core Ovens are on the order seen in the following excerpt from a letter to the maker by the Millers Falls Company of Millers Falls, Mass.: "We have used your oven five years without any expense for repairs. Can bake double the cores with 50 per cent. less coal than in our old oven. It is doing all you claim for it." The Millett Core Oven Co. of Brightwood, Mass., manufactures the oven of which such high commendation is uttered. Its 1903 catalogue is now ready for mailing to founders and others who are interested in knowing details.

American Air Compressors.—Machines that embody simplicity, durability, efficiency and economy are notably illustrated in the American Air Compressors. They are especially designed for maximum strength with minimum weight, and have served to the best possible effect many contractors, construction companies and various other active users of this class of equipment. In designing the equipments the maker has aimed to make them simple, durable, automatic, as economic in power consumption as possible, and satisfactory to buyers in every respect. That this has been accomplished need not be emphasized to those who are acquainted with the product of the American Air Compressor Works, which builds the machines referred to. This company has issued catalogue A, giving full yet brief details regarding its machines. These include the compressors, receivers, vacuum pumps, carbonic acid gas and high-pressure compressors, and the American air-lift pumping system. The company has its own foundry, pattern and blacksmith shops, equipped with the latest and best tools, and guarantees its product to be of the highest class in workmanship and materials. The catalogue also gives some important information relative to pneumatic tools, together with a table showing the flow of air through various size orifices. Those who are interested are invited to send for catalogue A.

Modern Hygienic Refrigerators.—The development and perfection of the refrigerator, both for large establishments and private houses, is one of the many avenues of modern progress. As the summer season is approaching, a reference to the best class of refrigerators is a timely subject. The manufacture of refrigerators demands great care, the best design, the best material and the best workmen. In this special field the McCray Refrigerator Co. of Kendallville, Ind., has been especially successful. The hygienic value of McCray refrigerators is particularly notable. The company has had a varied experience, extending over many years, not only in the

construction of refrigerators and cold-storage houses of all sizes, but in the actual experience of handling and storing perishable goods for future market. The experience gained in that work is applied in the construction and installation of McCray refrigerators. The latter is the result of many years of experiment and improvement. It is radically different from others, and possesses features that are strictly original, practical and successful. The McCray Refrigerator Co. has issued a handsomely-illustrated catalogue descriptive of its different designs. The information is presented in a brief but thorough style, and much of it is of great value to refrigerator users generally. The McCray patent system has demonstrated its superiority in many private residences, public institutions, cold-storage houses, meat markets, florists' plants, and, in fact, in every avenue where the best possible modern refrigerator is sought.

Excavation of Rock by Machinery.—Power-driven rock drills have revolutionized mining methods and increased the development of our mineral resources, as well as contributed to the undertaking of other work of which rock drilling forms an important part. They perform important services in tunneling through rock for any purpose, in the removal of submarine obstructions, and in the construction of railroad cuts and tunnels. Without the rock drill the cost of much of this work would have been prohibitive. The Sullivan Rock Drill and Air Compressor has been for many years one of the best-known equipments of this character. It is the result of the experience of forty years in manufacturing rock-working machinery. In its construction care has been taken to strengthen parts which through experience were found to give trouble, the number of working parts was reduced to a minimum, and as a result the cost for repairs on Sullivan rock drills is minimized, while their capacity is maximized. The Sullivan air compressors have been built only after the most thorough study of every detail, and embody many improvements that have been adopted after thorough tests have demonstrated their desirability. In manufacturing only the best materials are used, and all parts being made to jigs and templates, are perfectly interchangeable. The latest Sullivan catalogue is one of the most perfect publications of its character in letter-press, paper, illustrations and lucid style of explanation. This catalogue presents in a clear and concise manner the features for which superiority is claimed. It seems almost superfluous to add that the Sullivan Machinery Co., general offices at 135 Adams street, Chicago, manufactures the drills and compressors mentioned. The company has works at Claremont, N. H., and Chicago, and offices in New York, Pittsburg, Denver and other leading cities.

Dyke Automobile Supplies.—The construction of automobiles is a comparatively new industry. Yet successful vehicles of this character are now operated by their owners in all parts of the world. During recent years there has been a great increase in the number of machines sold in the United States, and American manufacturers have vied with those of other countries in supplying the demand. Numerous materials, parts and supplies are needed in building the best modern automobiles, and the manufacturing and supplying of them is an industry in itself. Very prominent in this branch of activity is the A. L. Dyke Automobile Supply Co., 1402 Pine street, St. Louis, Mo. This company claims to be the originator of the first auto supply business in America. It manufactures, acts as manufacturers' agents and jobs in automobile parts and supplies of every character. The company's own designs of machinery and equipment have earned a reputation that may well be envied by less successful makers. The Dyke gasoline engines, stationary engines, flexible reachless running gears, float feed carburetors, radiators and cooling devices are well known. The Dyke illustrated catalogue No. 8, of 184 pages, presents a full list of the numerous parts and supplies which the company makes and handles. The best-known products of American and European factories are seen listed therein. Igniters, transmissions, differential gears, boilers, tubular wheels, burners, regulators, meters, pumps, clothing, etc.; in fact, any and everything needed in building a power vehicle, are illustrated, described and priced. The catalogue is one of the most complete of its character that has been seen, and will be in great demand by automobile builders everywhere. Every manufacturer and dealer will want a copy of it in order to be fully posted as to the best equipments on the markets of the world, and is invited to send for a copy. (Consumers desiring the catalogue are asked to send ten cents for postage.)

FINANCIAL NEWS.

The Manufacturers' Record invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

Review of the Baltimore Market.

Office Manufacturers' Record,
Baltimore, Md., May 13.

The Baltimore stock market was generally quiet during the past week, almost the only interest displayed being in Cotton Duck, the merger plan of which is still pending. On Tuesday the Stock Exchange held only one session, adjourning after the morning call as a mark of respect to the memory of its president, Mr. Derick Fahnestock, who died on May 10. United Railways issues showed a little movement from the previous week; Consolidated Gas was dull, and Seaboard, except for some little trading in the bonds, were almost stagnant. Bank and trust-company stocks were dull, and investment securities developed little interest.

In the trading United Railways sold from 12½ to 13¼; the preferred at 33½; the incomes from 68½ to 68¾, and the scrip at 60; the 4s at 93¼ to 93½. United Light & Power 4½s changed hands at 86¼; Consolidated Gas at 70¼ to 70½; the 5 per cents at 113¼, and the 4½s at 102. Seaboard common sold from 26½ down to 25, but the preferred was without movement; the 4 per cents sold from 82¼ to 83¼, and the 5s from 101¼ to 101½. Cotton Duck at 3 to 3½; the incomes from 24 down to 22½, from which there was a partial reaction, and the 5s from 69½ down to 69. G. B. S. Brewing common was traded in from 13 to 14; the incomes from 36¼ to 36½; the income scrip from 37½ to 38¼, and the 1sts from 51 to 51¼.

In the trust-company group Continental sold from 198 to 202; Maryland from 198 to 199½, and Maryland Casualty from 51 to 51½; United States Fidelity & Guaranty at 140.

Other securities traded in were as follows: Atlantic Coast Line common, 128½ to 129; do. 1st 4s, 94½ to 94¾; do. new 4s, 86¼ to 87; do. Conn. 4s, 91; Baltimore City 3½s, 1930, 110½; Georgia & Alabama Consol. 5s, 110½ to 111; Maryland & Pennsylvania incomes, 50; Central Passenger Railway Extension 5s, 115½ to 116; City & Suburban 5s (Baltimore), 115; International Mercantile Marine common, 12½ and 12¾; International Mercantile Marine preferred, from 33¼ down to 30; United States 4s, 1907, 110; Carolina Central 4s, 95; Northern Central 6s, 1904, 104; Consolidation Coal, 84; Alabama Consolidated Coal & Iron common, 34; Maryland Telephone 5s, 86; Georgia, Carolina & Northern 5s, 110½; Security Fire Insurance, 7¼; Firemen's Insurance, 23; West Virginia Central 6s, 112½; North Baltimore 5s, 120½; Charleston & Western Carolina 5s, 109½, and Chesapeake & Ohio Canal 6s, 25.

SECURITIES AT BALTIMORE.

Last Quotations for the Week Ended
May 13, 1903.

Railroad Stocks.	Par.	Bid.	Asked
Atlanta & Charlotte	100	98¼	101
Georgia Sou. & Fla. 1st Pref.	100	76	78
Georgia Sou. & Fla. 2d Pref.	100	76	78
United Railways & Elec. Co.	50	12½	13
Seaboard Railway Common	100	25	25½
Seaboard Railway Preferred	100	42	42½
Atlantic Coast Line of Conn.	100	250	300
Bank Stocks.			
Citizens' National Bank	10	20	20
Commercial & Far. Nat. Bank	100	125	132
Farmers & Mer. Nat. Bank	40	69	70
First National Bank	100	158	158
German Bank	100	108	108
Manufacturers' National Bk.	100	102	102
National Exchange Bank	100	194½	194½
National Marine Bank	30	37	37
National Mechanics' Bank	10	31½	31½
Old Town Bank	10	11	11½
Second National Bank	100	190	190
Trust, Fidelity and Casualty Stocks.			
American Bonding & Trust	50	90	90
Continental Trust	100	199	200

International Trust	100	135	136½
Maryland Casualty	25	51	52
Maryland Trust	100	196½	199
Union Trust	50	65	67½
U. S. Fidelity & Guaranty	100	138	145

Miscellaneous Stocks.			
G. B. & S. Brewing Co.	100	13	13¾
United Elec. L. & P. Pref.	50	37	40
Cotton Duck Voting Trust	100	23½	5
Consolidation Coal	100	84	84
George's Creek Coal	100	88	97
Consolidated Gas	100	70¼	71

Railroad Bonds.			
Albany & Northern 5s	96	97½	97½
Atlanta & Charlotte 1st 7s, 1907	100	112½	112½
Columbia & Greenville 1st 6s, 1916	100	116½	116½
Georgia, Car. & North, 1st 5s, 1929	100	110½	110½
Georgia South. & Fla. 1st 5s, 1945	115	115	115
Georgia Pacific 1st 6s, 1922	100	125	125
Savannah, Fla. & West, 5s, 1934	112	112	112
Seaboard & Roanoke 5s, 1925	111½	111½	111½
Virginia Midland 1st 6s, 1906	104	104	104
Virginia Midland 2d 6s, 1911	113	113	113
Virginia Midland 3d 6s, 1916	113	113	113
Virginia Midland 4th 3-4-5s, 1921	109	109	109
Virginia Midland 5th 5s, 1926	114	114	114
West Virginia Central 1st 6s, 1911	112	115	115
Wilmington, Col. & Aug. 6s, 1910	111	111	111
Wilmington & Wel. Gold 5s, 1935	121	121	121
Charleston City Railway 5s, 1923	105	107	107
Charleston Con. Electric 5s, 1909	99	99	99
Knoxville Traction 1st 5s, 1928	100	100	100
Newport News & Old Pt. 5s, 1938	108	108	108
Norfolk Street Railway 5s, 1944	101½	101½	101½
United Railways 1st 4s, 1949	93½	93½	93½
United Railways Inc. 4s, 1949	68½	68½	68½
Seaboard 4s	83	83½	83½
Seaboard 10-year 5s	101½	101½	101½
Lexington Railway 1st 5s	102½	104	104
Georgia & Alabama Con. 5s	111½	111½	111½
South Bound 5s	109½	110½	110½
Augusta Ry. & Elec. 5s	102	104	104

Miscellaneous Bonds.			
Mt. V. & Woodby Cot. Duck 5s	68½	69½	69½
Mt. V. & Woodby Cot. Duck Inc.	23½	23½	23½
G. B. & S. Brewing 1st 3-4-5s	50½	51½	51½
G. B. & S. Brewing 2d Incomes	36	37	37
United Elec. Light & Power 4½s	86	86½	86½
Consolidated Gas 6s, 1910	110½	110½	110½
Consolidated Gas 5s, 1939	113½	113½	113½

SOUTHERN COTTON MILL STOCKS

Quotations Furnished by Hugh MacRae & Co., Wilmington, N. C., for
Week Ending May 12.

	Bid.	Asked.
Abbeville Cotton Mills (S. C.)	75	75
Aiken Mfg. Co. (S. C.)	90	92
Anderson Cotton Mills (S. C.)	123	126
Arkwright Mills (S. C.)	123	126
Augusta Factory (Ga.)	65	65
Avondale Mills (Ala.)	90	90
Belton Mills (S. C.) (old)	100	100
Bibb Mfg. Co. (Ga.)	108½	108½
Brandon Mills (S. C.)	101	101
Buffalo Cotton Mills (S. C.)	101	101
Buffalo Cotton Mills (S. C.) Pfd.	97½	97½
Cabarrus Cotton Mills (N. C.)	122	122
Chiquola Mfg. Co. (S. C.)	100	100
Clifton Mfg. Co. (S. C.)	170	177
Clinton Cotton Mills (S. C.)	118½	118½
Courtenay Mfg. Co. (S. C.)	130	135
Columbus Cotton Mills (Ga.)	94	99
Dallas Mfg. Co. (Ala.)	90	90
Darlington Mfg. Co. (S. C.)	93	93
Eagle & Phoenix Mills (Ga.)	100	100
Easley Cotton Mills (S. C.)	100	100
Enore Mfg. Co. (S. C.)	87½	87½
Enterprise Mfg. Co. (Ga.)	75	80
Exposition Cotton Mills (Ga.)	150	150
Gaffney Mfg. Co. (S. C.)	100	103
Gainesville Cotton Mills (Ga.)	85	85
Granby Cotton Mills (S. C.)	100	102
Grady Cot. Mills (S. C.) 1st Pfd.	99	100
Graniteville Mfg. Co. (S. C.)	160	163
Greenwood Cotton Mills (S. C.)	99	99
Grendel Mills (S. C.)	105	105
Henrietta Mills (N. C.)	203½	203½
King, John P., Mfg. Co. (Ga.)	90	91
Lancaster Cotton Mills (S. C.)	100	110
Lancaster Cot. Mills (S. C.) Pfd.	104	104
Langley Mfg. Co. (S. C.)	100	102
Laurens Cotton Mills (S. C.)	170	170
Lockhart Mills (S. C.)	100	100
Louise Mills (N. C.)	95	95
Louise Mills (N. C.) Pfd.	102	102
Marlboro Cotton Mills (S. C.)	104	108
Mayo Mills (N. C.)	170	170
Mills Mfg. Co. (S. C.)	99	99
Mills Mfg. Co. (S. C.) Pfd.	103	103
Monarch Cotton Mills (S. C.)	96	96
Monahan Mills (S. C.)	100	100
Newberry Cotton Mills (S. C.)	120	120
Norris Cotton Mills (S. C.)	110	113½
Olympia Cotton Mills (S. C.)	104	104
Olympia Cotton Mills (S. C.) Pfd.	100	100
Odell Mfg. Co. (S. C.)	100	103
Orangeburg Mfg. Co. (S. C.) Pfd.	102	102
Orr Cotton Mills (S. C.)	103	103
Pacelt Mfg. Co. (S. C.)	183	183
Pelzer Mfg. Co. (S. C.)	172	172
Piedmont Mfg. Co. (S. C.)	175	175
Poe, F. W., Mfg. Co. (S. C.)	140	140
Richland Cotton Mills (S. C.)	99	99
Richland Cotton Mills (S. C.) Pfd.	102	102
Ronoke Mills (N. C.)	95	95
Saxon Mills (S. C.)	102	102
Sibley Mfg. Co. (Ga.)	65	67
Spartan Mills (S. C.)	125	125
Trion Mfg. Co. (Ga.)	125	150
Tuacpan Mills (S. C.)	135	135
Union Cotton Mills (S. C.)	152½	152½
Union Cotton Mills (S. C.) Pfd.	100	102
Victor Mfg. Co. (S. C.)	130	136
Warren Mfg. Co. (S. C.)	109	109
Warren Mfg. Co. (S. C.) Pfd.	196	196
Washington Mills (Va.) Com. & Pfd.	105	105
Washington Mills (Va.) Common	10	20
Whitney Mfg. Co. (S. C.)	110	110
Wilmington Cot. Mills (N. C.) Pfd.	100	100
Wiscasset Mills (N. C.)	115	118
Woodruff Cotton Mills (S. C.)	98	98

An Important Coal-Investment Enterprise in West Virginia.

The most long-headed railroad men and capitalists of the country have for some years appreciated the fact that West Virginia is destined to become the greatest coal-producing State in the Union, and that it would therefore necessarily be

come one of the greatest wealth-creating centers of the country. On this account the Gould system, the Pennsylvania, the Baltimore & Ohio, the Chesapeake & Ohio, the Norfolk & Western and others have been straining every nerve to stretch their lines into the various coal districts of the State, and the ablest capitalists of the country have been buying up coal territory there. Already West Virginia is mining nearly two-thirds as much bituminous coal as the United States mined in 1880, and the phenomenal activity in this industry guarantees a rate of growth in coal mining and an enhancement in value of coal lands in West Virginia which will more than duplicate the fortunes made in Pennsylvania coal operations. Col. James B. Coryell of Philadelphia, a large Pennsylvania coal operator; Mr. George F. Craig of Philadelphia, a railroad and timber operator; Mr. H. Frazier, late chief engineer of the Chesapeake & Ohio Railroad; Mr. Charles Catlett, geologist, of Staunton, and others are organizing a company to purchase 24,500 acres of coal land covered with virgin timber in Fayette and Greenbrier counties, West Virginia. This is in the celebrated New River coal district, the land carrying the Pocahontas-New River-Ganley coals. A number of experts have reported on the property, and their reports are unusually favorable. First mortgage 6 per cent. bonds of the company, with 50 per cent. bonus of common stock, are offered for subscription through an advertisement in this issue. An opportunity is thus presented to investors to obtain a 6 per cent. investment secured by property which is every day increasing in value, and at the same time receive with each \$1000 bond \$500 in common stock.

Railroad Reports.

The Gulf & Ship Island Railroad Co. reports through Fisk & Robinson of New York for March gross earnings \$144,165, increase as compared with the corresponding month of last year \$30,429; operating expenses and taxes \$90,875, increase \$18,429; net earnings \$53,290, increase \$12,000; interest \$17,992, increase \$5301; surplus \$35,298, increase \$6689. For the nine months ended March 31 gross earnings \$1,263,365, increase \$250,842; operating expenses and taxes \$799,681, increase \$98,721; net earnings \$463,684, increase \$152,121; interest \$138,448, decrease \$672; surplus \$325,236, increase \$152,793.

The Louisiana & Arkansas Railway Co. reports for the quarter ended March 31, comparisons being made with the corresponding quarter of last year: Mileage operated 125.3 miles, increase 28.4; gross earnings \$133,079, increase \$12,254; operating expenses and taxes \$96,069, increase \$19,394; net earnings \$36,980, decrease \$7130; other income \$6614, increase \$6614; total net income \$43,594, decrease \$516; fixed charges \$20,920, increase \$7289; surplus \$22,674, decrease \$7805.

A Useful Volume.

The International Directory of Exchange Members, published by the Exchange Publishing House, McKeon & Schofield, proprietors, 8 Murray street, New York, contains the names of the members of the stock, produce, cotton, coffee and other exchanges in New York city, and of similar exchanges in Chicago and the other principal American cities, besides those in London and Liverpool, England, and at various points on the Continent of Europe. The book is compiled by Samuel Spalding Fontaine and Albert E. Wood. It is well printed and conveniently arranged with a good index, and includes, besides the names of exchange members, the titles of railway

companies in the United States and the address of their main offices, of industrial and miscellaneous companies, also with addresses, and of banks and trust companies, financial and commercial papers, etc. The volume, which is of more than 500 pages, is of convenient form, and is substantially bound in buckram.

New Corporations.

B. W. Hirsh is reported to be organizing a savings bank at Memphis, Tenn.

L. M. Covington is reported to be organizing a savings bank at Columbia, S. C.

D. H. Middleton will, it is reported, establish a new bank at Muskogee, I. T., with \$100,000 capital.

The Caney Bank & Trust Co. of Caney, I. T., has been organized by J. B. Dickson with \$25,000 capital.

The American Savings Bank & Trust Co. of Birmingham will, it is reported, open a new bank at Bessemer, Ala.

The First National Bank of Dalhart, Texas, capital \$25,000, has been authorized to begin business. H. J. Hammond is president.

Ex-Congressman D. T. Flynn and others are reported to be organizing a trust company with \$1,000,000 capital at Oklahoma City, Okla.

The First National Bank of Harrison, Okla., has been authorized to begin business; capital \$25,000. A. J. Dunlap is president; no cashier named.

The First National Bank of Newport, Ark., has been authorized to begin business; capital \$50,000. The officers are: Sigmund Wolff, president; W. A. Billingsley, cashier.

The Citizens' National Bank of Balinger, Texas, capital \$75,000, has been authorized to begin business. The officers are Tom Ward, president, and J. Wilmet, cashier.

The Roosevelt State Bank of Roosevelt, Okla., capital \$10,000, has begun business. The officers are: L. C. Cheuvront, president; L. D. Licklider, vice-president; J. L. Jaroleman, cashier.

Col. W. J. Swain of Austin, Texas, is reported to be organizing a fire and marine insurance company, to be called the Houston Fire & Marine Insurance Co., at Houston, Texas; capital \$1,000,000.

The Bank of Rock Hill, S. C., capital \$75,000, has received its charter. R. T. Fewell, president of the Arcade Mills, is to be president of the bank; Dr. W. G. Stevens, vice-president, and Ward Albertson, cashier.

The First National Bank of Indianola, I. T., capital \$25,000, has been approved by the comptroller of the currency. The organizers are Jesse H. Hill of Muskogee, Margaret Hill, J. P. Boyde, Frank D. Hill and S. M. Rutherford.

The First National Bank of Henryetta, I. T., capital \$25,000, has been approved by the comptroller of the currency. The organizers are C. H. Kellogg of Henryetta, John T. Wise, H. C. Murphy, T. C. Nolan, J. M. Wise and others.

The State Bank of New Iberia, La., capital \$100,000, has been approved by the comptroller of the currency. The organizers are J. P. Suberbielle, New Iberia, La.; Albert Estorge, H. L. Smith, E. L. Estorge, Nic Muller and others.

The People's National Bank of Roanoke, Va., has been approved by the comptroller of the currency; capital \$100,000. The organizers are Geo. H. P. Cole, Roanoke, Va.; J. R. Weaver, I. J. Meals, R. R. Fairfax, Jas. D. Johnston and others.

The Farmers and Merchants' National Bank of Henderson, Texas, capital \$25,000, has been approved by the comptroller of the currency. The organizers are W.

E. Stewart, Henderson, Texas; F. W. Pettey, J. H. Wiggins, N. L. Marwilsky and P. O. Beard.

The Fidelity Trust Co. of Fort Worth, Texas, has been incorporated, with \$50,000 capital, by A. M. Young, E. H. Carter, D. B. Keeler, George Thompson, J. V. Goode, L. L. Hawes, D. T. Bomar and J. G. Wilkinson of Fort Worth and Morgan Jones of Denver, Col.

The First National Bank of Canton, Miss., has been approved by the comptroller of the currency; capital \$50,000. The organizers are W. B. Wiener, Jas. J. McGrath, Isidor Gross, J. B. Chrisman, I. Hesdorffer and J. F. Flournoy, Jr., of Canton, Miss., and others.

The First National Bank of Cushing at Cushing, Okla., has been approved by the comptroller of the currency; capital \$25,000. The organizers are C. L. Lyon, cashier Bank of Cushing, Oklahoma Territory; J. W. Means, D. C. Teter, J. W. Means, Jr., and C. P. Rock.

The First National Bank of Greenwood, Ark., capital \$25,000, has been approved by the comptroller of the currency. The organizers are George N. Spradling, Greenwood, Ark.; Samuel F. Lawrence, James F. Lawrence, John A. Williams and Jennie E. Rowe.

The branch of the Citizens' Bank of Savannah, Ga., which is to be established in that city at Liberty and Montgomery streets, is to have officers as follows: Edward M. O'Brien, manager of the general department, and Edward L. Schirm, manager of the savings department.

A new bank is being organized at Atlanta, Texas, with \$25,000 capital. Those reported interested are Messrs. Youree, Woodfin and Hays, together with local capitalists. Mr. Youree is a banker of Shreveport, La.; Mr. Woodfin is known in Texas, Louisiana and Arkansas as a capitalist and business man, and Mr. Hays is from Fort Worth. All the stock is subscribed.

The comptroller of the currency has authorized the following banks to begin business: First National Bank of Lincoln, N. C., capital \$30,000; J. A. Abernethy, president; Claude Ramsaur, cashier. People's National Bank of Manassas, Va., capital \$25,000; Wm. H. Brown, president; G. Raymond Ratcliffe, cashier. People's National Bank of Salisbury, Md., capital \$50,000; V. Perry, president; S. King White, cashier. Sheffield National Bank, Sheffield, Ala., capital \$50,000; J. J. Gray, Jr., president; S. McGaughey, cashier.

The Atlantic National Bank is the name of the new national bank at Jacksonville, Fla., which it was first proposed to call the Duval National Bank. In addition to selecting another name the stockholders have increased the capital from \$300,000 to \$350,000. The officers are: President, Edward W. Lane of Valdosta, Ga.; vice-president, Fred W. Hoyt, who is president of the First National Bank of Fernandina. The cashier has not yet been selected. The directors are F. C. Brent, president of the First National Bank of Pensacola; J. T. Dismukes, president of the First National Bank of St. Augustine; F. W. Hoyt, president of the First National Bank of Fernandina; James M. Graham, president of the First National Bank of Gainesville; M. B. Lane, president of the Citizens' Bank of Savannah; Edward W. Lane, vice-president of the Merchants' Bank of Valdosta, Ga.; B. F. Dillon, division superintendent of the Western Union Telegraph Co.; C. E. Garner, president of the Jacksonville Board of Trade; J. D. Baker of Baker & Holmes, wholesale grocers of Jacksonville; J. A. Cranford, vice-president of the Consolidated Naval Stores Co.; B. F. Bullard, vice-president of the Consoli-

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dated Naval Stores Co., with headquarters at Tampa; W. C. Powell of Savannah, president of the Consolidated Naval Stores Co.; Lawrence McNeil, capitalist, of Savannah; A. V. Covington, president of the Covington Company of Jacksonville; H. L. Covington of Pensacola, vice-president of the Consolidated Naval Stores Co.; Frank Adams, president of the Florida senate.	

[For Additional Financial News, See Page 30.]

